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CONTENT

Message from the Founder Secretary AET	Error! Bookmark not defined.
Advisory Board	5
Editor-in-Chief.....	6
Consulting Editor	6
1. Customer Perception and Challenges towards Online Cab Services	7
Dhiraj Sankhe, Thakur Institute of Management Studies and Research, Mumbai	7
Saloni Purohit, Thakur Institute of Management Studies and Research, Mumbai	7
Kajal Shukla, Thakur Institute of Management Studies and Research, Mumbai	7
Dr. Yesha Mehta, Associate Professor, Thakur Institute of Management Studies and Research, Mumbai, MH, yesha.m@gmail.com	7
2. Sustainability in VUCA World: Innovation, Research, and Practices 2022	27
Mr. Oscar Crawford, Entrepreneur, Arizona, USA	27
3. Connectivity and Collaboration - The Challenges of Online Education	35
Romana Mohammed Gaus Shaikh, Student, Masters in Management Studies, Atharva Institute of Management Studies, Mumbai	35
4. Sustainability in VUCA World through E-Governance	50
Mr Ayush Kejriwal, Student, MBA in Business Analytics, NMIMS, Mumbai, India,kejriwal.ayush@gmail.com	50
Dr Shubhi Lall Agarwal, Student, MBA in Business Analytics, NMIMS, Mumbai, India,shubhilall@gmail.com	50
Mr. Pranshu Sunil Shende, Student, MBA in Business Analytics, NMIMS, Mumbai, India,pranshushende@gmail.com	50
Mr. Vineet Vohra, Student, MBA in Business Analytics, NMIMS, Mumbai, India	50
5. A Study on Currency Derivatives in Foreign Exchange Market among Consumer in Mumbai	58
Aishwarya Pathrikar, Student, Atharva School of Business, aishwarya.pathrikar22-24@atharvasb.edu.in	58

Hema Gupta,Atharva School of Business,hema.gupta22-24@atharvasb.edu.in.....	58
6. Practices to Sustain Women Entrepreneurs & Economic Development	72
Aishwarya Pathrikar, Student, PGDM, Atharva School of Business, Batch 2022-24, Mumbai, 1999aishwaryapathrikar@gmail.com	72
7. Human Resource Management Practices for Sustainable Business Growth	80
Sapna Gupta, Student,PGDM, Atharva School of Business, Mumbai	80
8. Tracing the rise of a 'Mindful' Consumer : Legal aspects of Consumer Protection in India	87
Dhritiman Sarma,1st Semester of BA-LLB Programme,The National University of Advanced Legal Studies ,Kochi , Kerala ,India, dhritimansarma2017@nuals.ac.in	87
9. A study of awareness about financial literacy among working people in Mumbai (SUBURBAN).	96
Atharva Babhulkar, Naresh Khiratkar,Student, Atharva Institute of Management Studies,Mumbai	96
10. ACCELERATION OF E-COMMERCE SECTOR IN INDIA	108
Prof. Kajal Desai,Lecturer, Bal Bharati's M.J.P. College of Commerce,Mumbai.....	108
Mr. Parthiv Patel,Student, S.Y.B.M.S.,Bal Bharati's M.J.P. College of Commerce, Mumbai.....	108
Reference.....	124
11. _A STUDY ON IRDA REGULATIONS ON THE CURRENT SCENARIO AND EMERGING CHALLENGES IN INSURANCE BROKERAGE	126
Dr. Aparna Ger,Assistant Professor,SVKM's Narsee Monjee College of Commerce and Economics.....	126
Dr. Riddhi Tambi,Associate Professor,Taxila Business School,Jaipur, Rajasthan	126
12. Importance of Technology in Facility & Building Management	140
Dr.Abhijit Sarkar,FRICS, CPSCM,CSM, ADI, Sr. Vice President & Country Head-Corporate Real Estate, Administration, and Infrastructure & Sourcing for Share Khan by BNP Paribas.	140
Abhijit.sarkar@sharekhan.com.....	140

Message

From the founder secretary AET

Atharva Group is symbolic of Growth fuelled by a Passion for Innovation



The growth of Atharva was a truly arduous journey with several challenges. Today, Atharva is established among Mumbai's leading institutes in higher education standing amongst the preferred institutes in the fields of Engineering, Business Management, IT, Hotel Management, Fashion, Film and TV as well as Drama and Performing Arts

Our commitment to provide global levels of education is total and the Atharva Group of Institutes is supported by a spacious and beautifully landscaped infrastructure that blends contemporary and traditional architecture.

AIMS has rigorously worked towards imparting global management philosophies to its students through its faculty, coming from diverse industry experience with sound academic research background. This blend is vital since we have to compete with the IIMs to get the best students.

Today, with over a decade of academic & research experience - Atharva Institute of management studies continues to impart "Thought Leadership" knowledge through its faculties and published research journals thus sharpening the skills of its management graduate and also supporting the Industry with ready professionals. AIMS students have continued to bag the institute several awards and accolades at various forums.

AIMS is ranked amongst the highest among B-Schools. All members of the Faculty play a critical role in administering the diverse academic and non-academic activities of the institute. Our aim, as always, is to nurture young, promising talent who will take their rightful place in the world of business with Confidence, Commitment and Competence!!!

A handwritten signature in black ink, appearing to read "Sunil Rane". The signature is written in a cursive style with a horizontal line underneath.

Shri Sunil Rane, Executive President AET

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Dear Readers,

Managing the triple bottom line i.e. People, Planet & Profit is absolutely crucial for business sustainability. It helps organizations to manage their economic, social & environmental opportunities & risks.

It is imperative that we as “Human” race, have to use resources which are available today, wisely, making sure that we leave some of them for our future generations. Thus sustainable development is crucial for society, economy & environment. There are major challenges to this perspective. But several ambitious, collaborative action-oriented strategies have evolved over a period of time.

We present select papers presented during the conference, in this issue of our Journal.

Happy Reading!

Editorial Team

Customer Perception and Challenges towards Online Cab Services

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ABSTRACT

In the recent years, India has witnessed a sudden growth in Online cab services with the advent of the offline cabs service providers. While Challenges and Perception has been studied as a construct in a multitude of services very minimal research has happened yet on the online cabs, which makes this a unique study of its kind. The study was undertaken on customers of various online cabs in India to assess the aspects that they were looking foremost while making use of the online cab services in India. From a pragmatic viewpoint it may be construed that by understanding influences of various variables on customer satisfaction, marketers are likely to envisage and plan the actions in leveraging the services. The objective in the present study is to identify Customers Perception and challenges towards online cab services with specific reference to online cab services.

KEYWORDS

Perception, challenges, Online Cab, service, customer

INTRODUCTION

It is 21st century, nearly everything we use is being digitised, cab booking is no exception. Meru cab services started in 2004 in Indian metro cities and then almost after six years, app based rental cab service was introduced in the Indian market. The app-based cab services revolutionised the cab service market. Among various transportation modes, cab service gained popularity because of its advantage of door-to-door service and now because of technological advancement customers were able to book cabs at competitive prices in just one click using their

smartphones. In densely populated countries like India where parking is a major problem because of space crunch as well as public transports are over-crowded during peak hours, these app-based services gained tremendous popularity. Before these app-based cab services came on the market, a cab used to run 30% of its time without passengers. The companies who run these aggregated cab services mainly don't own any car but they are tied up with the drivers running local cab services who agrees to register with the organisation, and the agency simply acted as a buffer or middleman between the drivers and customers by charging a commission only for their "match-making" services while developing the cab application. These app-based services need an app which is easy to navigate and needs good android/ IOS development skills. Also, a very strong and protected cloud architecture which is easily scalable is needed because lots of users are going to use it and hence the cloud infrastructure really needs to support thousands of connections simultaneously with an effective well-structured database. There are a number of applications providing such services in India such as Ola, Uber etc. Such companies provide commercial services. On the other hand, there are few carpooling applications such as quick ride, who are on a mission to remove traffic congestion from the road. It is definite to say that carpooling app services are removing carbon emission on a daily basis and is having a better impact on society, which is motivating. But the question arises whether a person is more likely to use carpooling or is concerned about his/her privacy and going to choose a ride alone? Is it the price factor which is in the customers mind? Or is it environment friendliness that leads a person to decide which ride to choose on a daily basis? Not only for customer's personal commute, but businesses are also choosing cab booking apps for their business to develop at a faster pace than others.

LITERATURE REVIEW

Rupali Rajesh, Sneha Chincholkar's (2018) study is focused to identify the difference between Ola and Uber customers, and for this data has been collected with the help of structured questionnaires. Data was collected from Mumbai and specifically from working professionals.

After data collection, statistical analysis showed that females prefer Uber service over Ola but while it comes to safety, consumers feel safer with Ola than Uber. Result of this study may help the taxi service industry to design their future marketing strategies.

Amit Vasishta, Rohit Goyal, Aman Chaudhary, Prabhu S (2018), attempted to study the satisfaction level of the customers who are using aggregated cab services in Pune city as their modes of transportation. In the paper it shows who is leading the paid taxi market in Pune city, reasons for choosing OLA/UBER over other Auto/Bus services. It has also been observed that closely 100% respondents are using paid taxi or cab services in Pune city i.e., OLA/UBER. This research paper tries to find out the dynamics of Pune's taxi market by studying various factors like the pricing strategy, portion of market share, revenue models, app convenience, etc.

Rd. P. Kishore Kumar, Rd. N. Ramesh Kumar (2016) put a lot of efforts to find out the criteria effecting the ones who receive the benefits while selecting cab services in their research paper. As per the work, the real dependent variable was 'coupon redemption behaviour' and independent variables were ability to innovate and become price conscious. The relationship between dependent and independent variables were empirically verified mainly through statistical methods. The statistical tools like correlation, regression and descriptive statistics were used for analysis portion in the paper. It was found from the study that consumers are interested to redeem coupons while selecting cab services. It was also revealed from the study that consumers are comfortable to redeem coupons through mobile apps while booking cab services.

Rd. S. M. Yamuna, R Vijayalakshmi, K Jeeva Mani, D Biopath, P Ranjith Kumar (2019), focused on studying the impacts or effects the cab Aggregators have on the society through various offerings like coupon codes, offers and discounts, satisfactory service, on the go quick applications, air condition facilities, efficient, loyal and skilful drivers, easy and convenient payment options, all time user helpline, fare meters which are electronic enabled, technological map enabled vehicles, etc. resulting in the rise and that's why termed as the disruptor, a force of change.

V. Hemanth Kumar, K. Sentamilchelvan (2018), researched on the criteria to be fulfilled for the customers to be happy while availing the cab service in Chennai. Factors mentioned were who are the ones responsible for providing the service, the tax to be paid, relax factor, ease of ride, goodness and richness of service and guidance for consumers which can be of immense benefit for the ones who are serving and to realize the Chennai demand. What they tell is that it will also

benefit the ones who serve the consumer needs and demands that helps to earn a name in a good book and maintain the brand qualities. In almost all day, a new entrepreneur is coming up with a new cab service to meet the needs of people living in both metro cities and in tier 1, tier 2 cities. This actually puts a big question: Is India undergoing a cab revolution? Khadi, Dr. Vaibhav Patil (2018), tries to signify that the fulfilment of the desires of the commuters is indeed of huge significance in the Maharashtra catepan. What they use is basically descriptive analytics/visual aids to realize what the sample of commuter respondents really needs or wants.

Research Methodology

Research gap Identified

Literature of review suggests that a number of studies have been conducted to study the Challenges faced by the customer ,perception of customers towards online cab services and factors influencing the consumers while selecting cab services, how Taxi Aggregators have created impacts in the society through various things like offering coupons, quality service, mobile applications, air conditioning, educated and skilled drivers, and identify the difference among customers of various aggregators, and much more.

Objectives of the study

To study the perception of customers towards online cab service to study the challenges of customers towards online cab service to study the customer preference towards online cab service according to age, Gender, Income Education

Hypothesis of the study

H0 There is no effect of age on customer challenges on online cab services

H0: There is no effect of age on customer perception towards online cab services

H0: There is no effect of education on challenges of online cab services

H0: There is no effect of education on customer perception towards online cab services

H0: There is no effect of monthly income on challenges towards online cab services

H1: There is effect of Monthly income on consumer perception towards online cab services H0:

There is no effect of Occupation on challenges towards online cab services

Research Design

Universe of the study:

Data is collected from the people who uses online cab services in past and most of the respondents are college students who are pursuing their post-graduation and they use online cab services so they can give their honest review based on their past experiences based on the online cab service.

Statistical test method

Anova Test - An ANOVA test is a type of statistical test used to determine if there is a statistically significant difference between two or more categorical groups by testing for differences of means using variance. Another Key part of ANOVA is that it splits the independent variable into 2 or more groups.

Method of data collection

Primary data collection method Surveys and questionnaires are 2 similar tools used in collecting primary data. They are a group of questions typed or written down and sent to the sample of study to give responses. After giving the required responses, the survey is given back to the researcher to record.

Limitation of the study

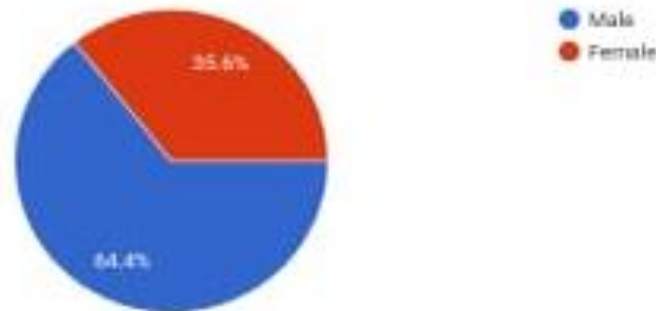
Because the research sample was drawn mostly from a single B-School campus in Mumbai, it cannot be generalised to the rest of India. Individual respondents' prejudices towards a

particular feature of the services received may be present in the responses, reducing the study's impartiality. Some questions were posed negatively to test the consistency of the replies; some of these questions may have appeared unclear to the respondent. This research only scratches the surface of the enormous potential for Online Cab Services in India. Online cab services are growing increasingly popular in India, first in Tier 1 cities and now spreading to Tier 2 and Tier 3 cities. Online Cab Services offer a less expensive and more convenient means of transportation for clients travelling intra-city or even inter-city. With many international firms, including as Uber, entering the Indian industry and Indian companies, such as OLA and Meru Cabs, creating intense competition, the companies must build substantial areas of differentiation while preserving fundamental points of parity. This will allow them to obtain a long-term competitive advantage over their competitors and gain an early share of the Indian market.

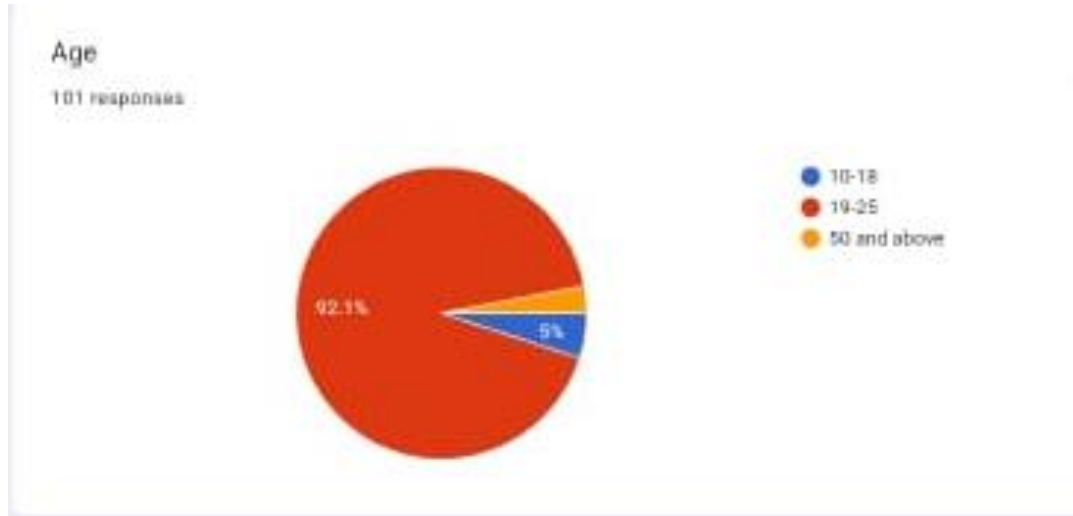
Data Interpretation and Analysis

Gender

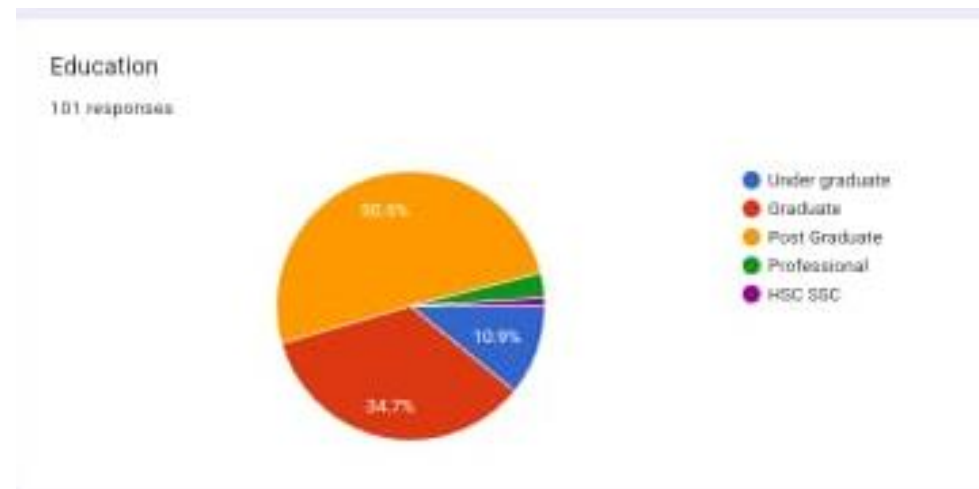
101 responses



In gender we can see there is more male respondents compared to females.



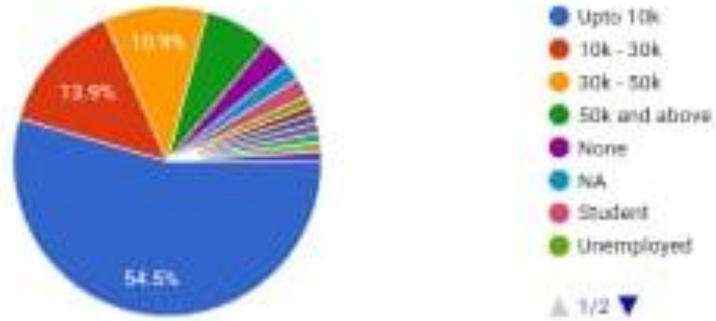
In above Data of Age, we can see there is more percent of people from age group range 19 to 25 compared to others.



In Above data of education of respondents, we can see the responses collected from majority are postgraduates compare to others.

Monthly Income

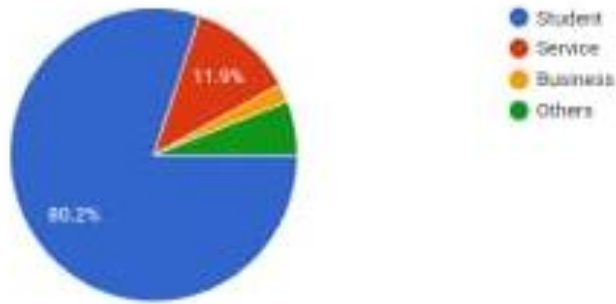
101 responses



According to above data of monthly income of respondent's majority of them earn up to

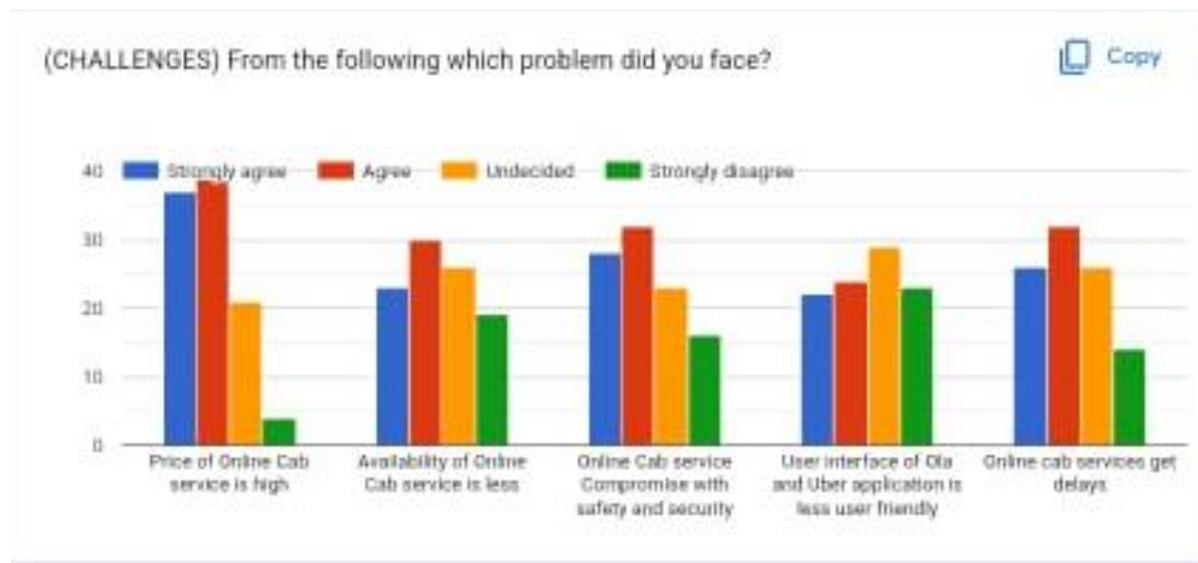
Occupation

101 responses

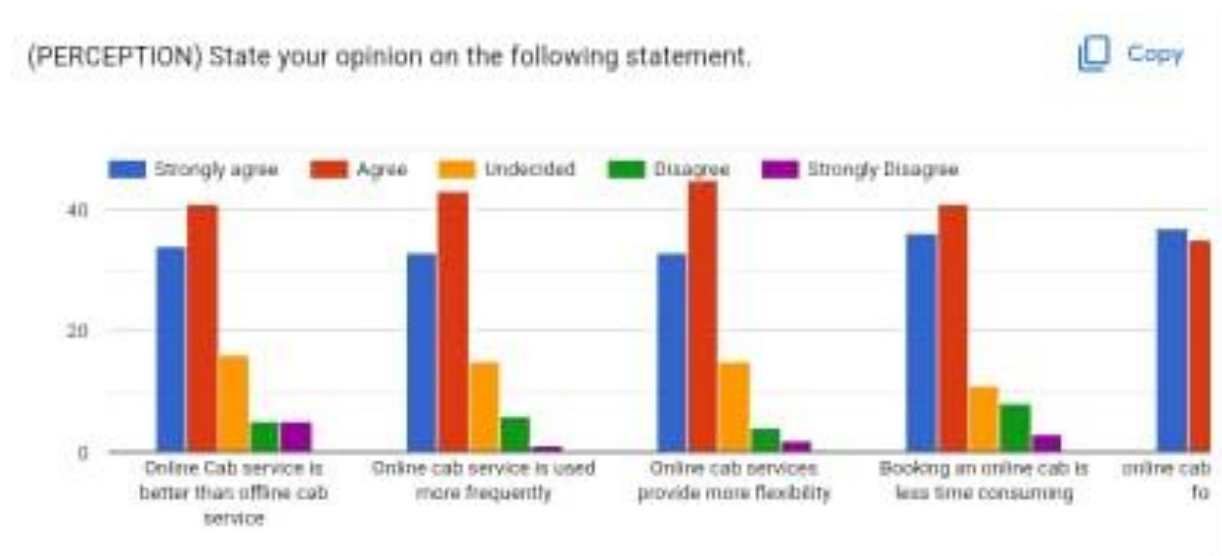


10k.

According to above data of occupation of respondent's majority of them are students.



According to above data the challenges faced by respondents about online cab services majority of respondents agrees on the price is very high , availability is less , it is not that safe , UI is not user friendly , and it get delays most of their time.



According to above data the perception of people about online cab service is as follows majority of people agrees on online cab service is better than offline cab service, online cab service is used more frequently, online cab service provide more flexibility , booking an online cab is less time consuming , and majority of respondents strongly agree on online cab service is value for money.

Anova Test on Age and challenges

ANOVA

C Mean

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.633	2	.817	.894	.412
Within Groups	85.833	94	.913		
Total	87.466	96			

ANOVA Effect Sizes^{a,b}

		Point Estimate	95% Confidence Interval	
			Lower	Upper
C Mean	Eta-squared	.019	.000	.088
	Epsilon-squared	-.002	-.021	.068
	Omega-squared Fixed-effect	-.002	-.021	.067
	Omega-squared Random-effect	-.001	-.010	.035

a. Eta-squared and Epsilon-squared are estimated based on the fixed-effect model.

b. Negative but less biased estimates are retained, not rounded to zero.

Null Hypothesis: There is no effect of age on customer challenges on online cab services

Alternate Hypothesis: There is effect of age on customer challenges on online cab services

Conclusion: The p value is greater than 0.05 so the null hypothesis is accepted.

Anova Test on Age and Perception

ANOVA

P mean

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.037	2	.018	.031	.970
Within Groups	56.243	94	.598		
Total	56.280	96			

ANOVA Effect Sizes^{a,b}

		Point Estimate	95% Confidence Interval	
			Lower	Upper
P mean	Eta-squared	.001	.000	.004
	Epsilon-squared	-.021	-.021	-.017
	Omega-squared Fixed-effect	-.020	-.021	-.017
	Omega-squared Random-effect	-.010	-.010	-.008

a. Eta-squared and Epsilon-squared are estimated based on the fixed-effect model.

b. Negative but less biased estimates are retained, not rounded to zero.

Null Hypothesis: There is no effect of age on customer perception towards online cab services

Alternate Hypothesis: There is effect of age on customer perception towards online cab services

Conclusion: The p value is greater than 0.05 so the null hypothesis is accepted.

Anova Test on Education and challenges

ANOVA

C Mean

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5.927	4	1.482	1.630	.173
Within Groups	87.267	96	.909		
Total	93.194	100			

ANOVA Effect Sizes^{a,b}

		Point Estimate	95% Confidence Interval	
			Lower	Upper
C Mean	Eta-squared	.064	.000	.141
	Epsilon-squared	.025	-.042	.105
	Omega-squared Fixed-effect	.024	-.041	.104
	Omega-squared Random-effect	.006	-.010	.028

a. Eta-squared and Epsilon-squared are estimated based on the fixed-effect model.

b. Negative but less biased estimates are retained, not rounded to zero.

Null Hypothesis: There is no effect of education on challenges of online cab services Alternate

Hypothesis: There is effect of education on challenges of online cab services

Conclusion: The p value is greater than 0.05 so the null hypothesis is accepted

Anova Test on Education and Perception

ANOVA

C Mean

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.313	4	.328	.343	.848
Within Groups	91.881	96	.957		
Total	93.194	100			

ANOVA Effect Sizes^{a,b}

		Point Estimate	95% Confidence Interval	
			Lower	Upper
P mean	Eta-squared	.037	.000	.097
	Epsilon-squared	-.003	-.042	.060
	Omega-squared Fixed-effect	-.003	-.041	.059
	Omega-squared Random-effect	-.001	-.010	.015

a. Eta-squared and Epsilon-squared are estimated based on the fixed-effect model.

b. Negative but less biased estimates are retained, not rounded to zero.

Null hypothesis : There is no effect of education on perception of consumer towards online cab services.

Alternate hypothesis: : There is effect of education on perception of consumer towards online cab services.

Conclusion: The P-value is greater than 0.05 which is 0.97 which mean Null hypothesis is accepted

Anova Test on Education and perception

ANOVA

P mean

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.255	4	.564	.928	.451
Within Groups	58.313	96	.607		
Total	60.568	100			

ANOVA Effect Sizes^{a,b}

		Point Estimate	95% Confidence Interval	
			Lower	Upper
P mean	Eta-squared	.037	.000	.097
	Epsilon-squared	-.003	-.042	.060
	Omega-squared Fixed-effect	-.003	-.041	.059
	Omega-squared Random-effect	-.001	-.010	.015

a. Eta-squared and Epsilon-squared are estimated based on the fixed-effect model.

b. Negative but less biased estimates are retained, not rounded to zero.

Null hypothesis: There is no effect of education on customer perception towards online cab services.

Alternate Hypothesis: There is effect of education on customer perception towards online cab services.

Conclusion: The P value is greater than 0.05 so the null hypothesis is accepted Monthly income and challenges.

Anova Test on Monthly income and challenges

ANOVA

C Mean

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.313	4	.328	.343	.848
Within Groups	91.881	96	.957		
Total	93.194	100			

ANOVA Effect Sizes^{a,b}

		Point Estimate	95% Confidence Interval	
			Lower	Upper
C Mean	Eta-squared	.014	.000	.043
	Epsilon-squared	-.027	-.042	.003
	Omega-squared Fixed-effect	-.027	-.041	.003
	Omega-squared Random-effect	-.007	-.010	.001

a. Eta-squared and Epsilon-squared are estimated based on the fixed-effect model.

b. Negative but less biased estimates are retained, not rounded to zero.

Null hypothesis - there is no effect of monthly income on challenges towards online cab services.

Alternate Hypothesis - There is effect of monthly income on challenges towards online cab services.

Conclusion - The p value is greater than 0.05 which is 0.8 so the null hypothesis is accepted which means there is no effect of monthly income on challenges towards online cab services and the alternate is accepted.

Anova Test on Monthly income and perception

ANOVA

P mean

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.028	4	.757	1.263	.290
Within Groups	57.540	96	.599		
Total	60.568	100			

ANOVA Effect Sizes^{a,b}

		Point Estimate	95% Confidence Interval	
			Lower	Upper
P mean	Eta-squared	.050	.000	.120
	Epsilon-squared	.010	-.042	.083
	Omega-squared Fixed-effect	.010	-.041	.082
	Omega-squared Random-effect	.003	-.010	.022

a. Eta-squared and Epsilon-squared are estimated based on the fixed-effect model.

b. Negative but less biased estimates are retained, not rounded to zero.

Null Hypothesis - There is no effect of Monthly income on consumer perception towards online cab services.

Alternate hypothesis- There is effect of Monthly income on consumer perception towards online cab services.

Conclusion- The p value is smaller than 0.05 which is 0.029 so the null hypothesis is rejected, and alternate hypothesis is accepted which means there is effect of monthly income on consumer perception towards online cab services.

Anova Test on occupation and challenges

ANOVA

C Mean

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.065	3	.688	.733	.535
Within Groups	91.130	97	.939		
Total	93.194	100			

ANOVA Effect Sizes^{a,b}

		Point Estimate	95% Confidence Interval	
			Lower	Upper
C Mean	Eta-squared	.022	.000	.080
	Epsilon-squared	-.008	-.031	.051
	Omega-squared Fixed-effect	-.008	-.031	.051
	Omega-squared Random-effect	-.003	-.010	.018

a. Eta-squared and Epsilon-squared are estimated based on the fixed-effect model.

b. Negative but less biased estimates are retained, not rounded to zero.

Null Hypothesis - There is no effect of Occupation on challenges towards online cab services

Alternate Hypothesis - There is effect of Occupation and challenges towards online cab services.

Conclusion - The p value is greater than 0.05 which is 0.53 so the null hypothesis is accepted so there is no effect of occupation on challenges towards online cab services and the alternate hypothesis is accepted.

Anova Test on Occupation and Perception

ANOVA

P mean

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.192	3	.397	.649	.585
Within Groups	59.376	97	.612		
Total	60.568	100			

ANOVA Effect Sizes^{a,b}

		Point Estimate	95% Confidence Interval	
			Lower	Upper
P mean	Eta-squared	.020	.000	.074
	Epsilon-squared	-.011	-.031	.046
	Omega-squared Fixed-effect	-.011	-.031	.045
	Omega-squared Random-effect	-.003	-.010	.016

a. Eta-squared and Epsilon-squared are estimated based on the fixed-effect model.

b. Negative but less biased estimates are retained, not rounded to zero.

Null Hypothesis - There is no effect of occupation on perception towards online cab services

Alternate Hypothesis - There is effect of occupation on perception towards online cab services

Conclusion - The p value is greater than 0.05 which is 0.5 so the null hypothesis is accepted so there is effect of occupation on perception towards online cab services and the alternate hypothesis is rejected.

Findings of the study

Age has no bearing on the difficulties with using online cab services. Age has little bearing on how customers view online cab services The difficulties with using online cab services are unaffected by education. Education has no impact on how customers view online cab services.

Monthly income has little impact on issues with using online cab services. Monthly income has an impact on how customers see online cab services. Challenges and the impact of the occupation affect online cab services. The perception of online cab services is unaffected by occupation.

Suggestion

- Reach Out through PR and Media

Effective PR will create brand awareness, brand loyalty, and leave a positive impression about your business on the mind of the customers. You can also convert your audience to customers via PR strategies.

- Should focus on Targeted Advertising

Through the use of algorithms, and customer behaviour and pREFERENCES, you can zero in on your target customer group on various platforms. Then you expose them to your advertisement, and they are more likely to opt for your service.

- More Offers and Promotions

You can offer discounts to customers directly through your taxi dispatch software or send a text or message. The promotions can also be published online on social media accounts or your websites.

Conclusion

The appearance of physical facilities, equipment, people, and printed and visual materials, as well as the appearance of physical facilities, equipment, personnel, and printed and visual materials, all play a key impact in Overall Customer Satisfaction gained from Online Cab Services. taxi firms must have up-to-date equipment, aesthetically appealing physical amenities within the taxi, and well-dressed cab drivers to attract consumers. Customer responsiveness, or the desire to assist customers and deliver fast service, is critical to overall customer satisfaction. As a result, cab services must be timely, openly disclose all services supplied, provide prompt services, and operate around the clock. Third, empathy, or trustworthiness, believability, honesty, compassion, and individualised attention delivered to consumers, is important in assessing Overall Customer Satisfaction.

Thus, cab services and drivers must be empathetic and comforting to the client's issues, as well as courteous, helpful, and attentive to particular consumer needs. Reliability and assurance, or the capacity to perform the promised services consistently and precisely, so gaining the customer's trust and confidence, are insufficient in contributing to Overall Customer Satisfaction. One cause for the aforementioned phenomenon might be that Indian clients are not yet as comfortable utilising Online Cab Services like Ola, Uber, or Meru as their counterparts in Western industrialized nations.

They continue to favour on-road taxis to transport them to their destinations. Second, it might be due to a lack of faith in the Online Cab Services' invoicing and payment processes. Being used to the bill created by local taxis at the conclusion of the ride, Indian clients may need some time to adjust to the new bill generating and payment mechanism. Finally, in India, there are more security worries, particularly for women, than in Western countries. As a result, women in India are less comfortable riding alone in cabs than women in Western industrialized countries. As a result, when compared to other countries, India's dependability or trust factor is low.

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Sustainability in VUCA World: Innovation, Research, and Practices 2022

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ABSTRACT

Living in a (VUCA) world, humanity faces these questions. How shall we manage the interests of our individual natures and our oneness nature with all things that exist, particularly in our ecosphere? How shall we arrive at an equitable system engaging practices beneficial to the reclamation, rehabilitation, restoration, and recovery of our biosphere's ecosystem? How shall the human constituency accomplish this, such that it will continue to promote life for all life forms at the macro and micro levels of existence?

KEYWORDS

Sustainability, VUCA, Innovation, Research, Practices

How shall we generate these outcomes such that it is a shared experience where the rich do not give or receive more and the poor do not give or receive less than agreed to apportionments? (P.Moses, 2022)

“Peace will come to the hearts of people when they realize their Oneness with the universe...it is everywhere (in everything and in everybody).” Black Elk(National Park Service, 2020)

These are the questions before humanity that must be managed to positive outcomes in the shortest amount of time possible. Planetary conditions demand an immediate engagement of skilled professionals assigned to create non-lethal energy systems to facilitate human life and activity without causing harm to the ecosphere and other life forms inhabiting the ecosphere.

Examination of the global diversity resident within the ecosphere reveals the individual interests of humanity and the collective interests of humanity are fertile ground for growth and discovery when mutual respect is foundational to shared developmental experience. The individual and collective natures of humanity must accept responsibility to assert our collective gifts, skills, talents, and treasures to be just and responsible stewards of the Earth, our biosphere home.

Together, the most ambitious and innovative enterprise that the oneness of humanity might engage would be to mature beyond that of an adolescent species able to reach developed consensus on research, innovation, and best practices to sustain our world. Humanity cannot afford the luxury of thinking that everything is about humanity alone. The stakes are much higher.

The message of Alvin Toffler's work, the Third Wave, informed readers that the industrial producers of fossil fuels would be reluctant to yield to renewable energy sources because they would not want to go the way of the dinosaurs to become extinct. They will not surrender their access to wealth that they have maintained for generations, without a fight. (Toffler, 2022)

Individual consumers and business consumers are addicts willing to pay the price necessary to keep their fossil fuel guzzlers moving. The same will complain to political systems they want their fossil fuel fixes cheaper.

The Agricultural Wave resisted the coming of the Industrial Wave because it meant yielding power and control of commerce. The Industrial Wave survived on fossil fuels and the producers of fossil fuels became opulently wealthy. The Technological Wave or Information Age aspires to an end of consuming non-renewable energies like the fossil fuels of oil, natural gas, and coal.

Wealth achieved develops power. Power desires to maintain its superiority. The evidence is clear. The world economy suffers from global inflation while oil producing conglomerates generate record breaking profits at any cost to the ecosphere.

While profit will exist in some form in the world once sustained, it should not be sanctioned to do so at the expense of the ecosphere or the human population. Energy producing companies must work harder to generate new sources of renewable energy that neither causes harm to consumers of the ecosphere.

Where the people have most power in this transaction is simple to do, yet difficult to do because of habits of consumption. People power requires making sacrifices to develop best practices for the health and maintenance of the ecosphere. Activities include:

1. Stop consuming what may be produced for food and energy.
2. Reduce consumption for what cannot be produced.
3. Identify areas where progress can be made by energy audit.
4. Engage alternative means of transportation, heating, cooling, and meal preparation.
5. Walk more. Ride less.
6. Commit to never again purchasing a car or truck that requires fossil fuels.

These are activities the people can seek, initiate, and engage with all diligent intent. Efficient discoveries must be published and shared as open source.

The potential to extinction because of behavior making the ecosphere uninhabitable is the utilization and implementation of weapons of mass destruction. This destructive behavior threatens the individual and the collective of humanity.

All of us must realize that our lives are dependent on each other and the forces of nature for our survival. Innovative education at every level of knowledge transfer must inform the all of us that life on Earth is dependent upon the Sun's energy for nutrition, heat, and survival. (Solarponics, 2019)

When either, of the forces of nature, is threatened by human behavior, the *VUCA World emerges* as an earthquake, hurricane, fire, flooding, drought, famine, and other forms of natural disaster. Human behavior causes these global dilemmas. (Society, 2020)

What the People Can Do

When we can see others through the eyes of love, we will have taken another step forward toward the maturity needed to heal the world. Seeing with the eyes of love asserts the interest that all of us must commit to working together .

In 2013, [Sir David Attenborough](#) asserted humans are a plague on the Earth that must be controlled by limiting population saying, "All our environmental problems become easier to solve with fewer people, and harder – and ultimately impossible – to solve with ever more people." (L. Gray, 2013) His assessment is correct given current political and economic direction motivated by power and control.

Seeing through the eyes of love prompted a growing number of women to develop a movement call going on Birthstrike. Many were concerned about giving birth under current worldconditions. (Z. Gorvett, 2022) Many re – evaluate what they have invited successive generations to experience in light of current world level trends.

2017 Environmental Research Letters presented four actions to reduce personal carbon emissions annually to enhance sustainability. They include:

1. Families, in developed nations having one less child, reduce emissions by 58.6 metric tons per year,
2. Living car-free, reduces emissions 2.4 metric tons per year,

3. Avoiding airline travel, especially transoceanic flights, reduce emissions 1.6 metric tons per year, and
4. Eating a plant based diet reduces emissions by 0.8 metric tons per year. (Wynes& Nicholas, 2017)

What Organizations, Corporations, and Governments Can Do

When individuals become addicted to drugs, alcohol, and other self-destructive behaviors, treatment responses focus on behavior modification techniques and strategies to reduce the potential for the affected to continue their self-destructive behavior. This behavior can be contrasted to developed nations of the world population addicted to consuming non-renewal fossil fuels that facilitate the transportation of people, goods and services.

Achieving net zero carbon emissions is a worthy goal but the needle must move to the goal of net positive to allow for the Earth to regenerate and reset in healing mode. World organizations, corporations, and governments must intentionally model Ralph Waldo Emerson's thought that says, *"To leave the world a bit better, whether by a healthy child, a garden patch, or a redeemed social condition; to know that even one life has breathed easier because you have lived — that is to have succeeded."*(Akeptus, 2019)

How well are we experiencing success to date?

In 1991, Michael Jackson wrote an essay for his charity, the Heal the World Foundation. From his essay came these words for his song, Heal the World. In it, he sings, "Heal the World. Make it a better place, for you, and for me and the entire human race." (YouTube, 2009)

Are we doing our part?

Organizations, Corporations, and Governments(OCGs) must create new thinking cultures and environments that serve the greater good of humanity. We all value the benefits of transportation systems. (CATF, 2020)

OCG influence will only be generated and supported in the future when it can be demonstrated that collectively they have regard for people and planet through thoroughly and comprehensively searching and researching new energy applications to achieve goals and meet needs. Equitable policy and practices must not only focus on the moving target of net zero, but the fixed target of net positive.

Despite our best efforts, we continue to emit greenhouse gasses at unsustainable levels. The impacts of climate change are being felt in every corner of the planet and yet we continue to use almost twice the resources that the Earth can provide on an annual basis.

Sol Salinas shares in his Ted Talk how collective humanity must be focused on renewable sources of energy that when consumed leaves targeted zero carbon emissions like biomass, geothermal, solar, and wind. He shares that currently, one quarter of Iceland is powered by underground geothermal energy, captured in the form of steam that once captured as steam energy turns turbines that generate electricity.

Analysis by the University of Iceland revealed carbon molecules in the steam. Those carbon molecules were extracted and placed in water to become carbonated water as many people drink. The water was then injected back into the ground, mineralizing the ground and accelerating organic growth. The University of Iceland determined their actions went beyond net zero carbon emissions to net positive, leaving the ground better than they found it. That is the goal of our shared quest. (TEDxPearlStreet, 2022)

Innovative discovery is one thought away. One of you listening to this presentation may have it in you to invent the innovations leading to the passenger solar car, the passenger solar plane, the solar train, the solar tractor trailer truck, the solar passenger cruise ship, or the solar drone.

One of you may be the one that discovers an innovative process to seed the atmosphere with a chemical equation that seeds the earth with carbonated rain that restores our entire ecosphere in a generation. One of you may already be brewing an innovative idea to use light to cleanse the oceans, the seas, and the atmosphere.

One of you may be the one to see through the roadblocks to an innovative less expensive clean nuclear fusion energy as a practical way to generate power. (Willmer, 2022) One of you may inspire the people of the Earth to value our individual and collective behavior such that we leave the Earth and all her life forms better than we found them.

In summation, we must move on from the trivial matters of our adolescent minds looking out for ourselves and our benefit only. We must, with all deliberate haste, act with deliberate and intentional focus to achieve the oneness of mind necessary to accomplish the task before us.

The task is the reclamation, the rehabilitation, the restoration, and the recovery of our shared ecosphere. Our lives, our children's lives, and the lives of all life depend on us answering the call to heal the world.

To that end, you are commissioned to service.

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Connectivity and Collaboration - The Challenges of Online Education

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ABSTRACT

The COVID-19 pandemic affected the entire world and everything came at a halt. Whether it was Social Life, Businesses, or Education, everything moved online. The education system adopted new techniques and methods to impart learning to students, especially with the help of virtual classrooms. However, education in such situation has become a difficult task for the students and educators in India. The prime reason for it being the connectivity issues due to bad internet network. Not every home in India has a super-fast Wi-Fi connectivity, and besides, not everyone has educational technology (EdTech) resources to join the online lectures, especially people in the remote areas. This study aims at understanding and finding solutions for the challenges faced by students and lecturers during online learning. For the primary data, a questionnaire was created asking educators and learners for their experience and opinions on the current online education scenario and the problems they face during teaching/learning. Various online articles and e-books were also referred for the study. Analysis of the total data was based on the responses of respondents and the secondary data. It was revealed that online education system in India is not well established and needs improvement. The major problem is the communication gap between students and educators and the poor quality of network. The research has come to a conclusion that there is an urgent need of enhancing the online education resources like the internet speed and data, moreover, easy and approachable methods of learning like one-on-one interaction should be made available to students to resolve queries regarding lessons.

KEYWORDS

Online education system, educational technology, online lectures, students and educators, online education scenario, connectivity issues, communication gap, e-learning

INTRODUCTION

Just like every major industry, the education system has also been immensely affected by COVID-19. The global lockdown led to the shutting of institutions across the world, hence affecting the education of students broadly. This necessary step to avoid any further spread of the virus has contrarily taken a toll on the education of millions of students in India. Schools and colleges have started holding online sessions to avoid any disruptions in the academics. However, it has imposed various challenges on learners and educators. Internet and technology is not something that is easily accessible in India. Frequent power cuts and the problem of electricity exist in a majority of the rural, semi-urban and backward regions of India. Due to the unavailability of the broadband facility in most of these regions, people living in such places struggle to get even a proper mobile network, forget about internet connectivity.

According to a study, roughly 24% of homes have access to a good internet connection and adequate electronic gadgets to access education online. Moreover, suddenly adapting to a completely new form of education can get difficult for the educators and learners. Apart from the various complications in accessing and using technology, the major challenge that arises during online learning is the lack of interaction between educators and students.

The deprivation of basic educational technology resources like internet and electronic gadgets can affect the academics of millions of students to a great extent. The students and educators in the rural area are the ones affected the most with minimal resources accessible to them. In case the connectivity is good, the collaboration isn't effective and the context cannot be understood properly.

This research aims at understanding the challenges of collaboration and connectivity faced by students and educators when they use the educational technology resources for online learning, and likewise, suggesting proper alternatives for these problems to help the educators and

learners to access good internet connection and better online learning methodology in order to explain the syllabus effectively.

Objectives of the Research

- To understand the challenges faced by students and educators during online learning
- To find out better alternatives for student-educator interaction in online learning
- To find solutions for a better internet connectivity to support online learning

Complications in Online Learning

Online education has made it easier for people to learn anything they want at anytime and anywhere, but is it really as effective as said to be? Ever since the global pandemic has hit the country, students are at a loss. Although online learning does not require an infrastructure like classrooms, tables, chairs etc., it does need computer, adequate software, constant electricity and high-bandwidth internet. This is only accessible to a very minimal percentage of population in developing countries like India. A very large portion of students in India do not have access to a proper internet connection, among which majority belong to the rural areas. The ones who have access to the internet, face problems like poor quality video and sound, frequent disconnection, and glitch in the server, to name a few.

Although online learning through various edtech apps has been introduced in India a long time ago, most of the educators and learners are not familiar with the online learning resources because of the basic classroom learning model. And now due to COVID-19, educators have to adapt to an extremely new way of teaching the syllabus all of a sudden. They need to make use of effective ways to educate students so it helps them understand the concept while they're miles away, only visible through a computer screen.

Students on the other hand are facing problems in interacting with educators and concentrating during the online sessions. Classroom learning requires a student to be present, and it gives the advantage of human touch. But, with online learning, the element of connectivity is just limited to an internet connection. Learners having doubts or questions during lectures find it difficult to address it in the online mode. Moreover, while educators might be busy trying to clear the concepts, students can simply walk out, turn off their cameras, and do as they please because no one is really watching. Besides, if a student pays enough attention to understand what is being taught, the next problem arises - the gap between communication and collaboration with educators.

Challenges in Collaboration

Collaboration or as said in layman's term - interaction, is the defining feature of teaching. Without a student-educator interaction, the educator will not be able to find out how effective their lesson was, and the students will not be able to ask questions and queries. Online education affects this interaction and creates a barrier between the students and educators to effectively communicate the problems and their solutions. This is because firstly, the connectivity isn't stable, and secondly educators are not well accommodated to solve student queries online. Many a times, students have a doubt during the lesson, but educators are unable to effectively utilize the online resources to solve them. Especially for complicated subjects like mathematics and chemistry, the explanation cannot be entirely done verbally and requires a better medium for explanation. Moreover, students become passive when attending online lectures. They do not actively participate in any interactions with the educators.

The challenge of collaboration in online learning can be resolved in the following ways:

- **Active participation**

Educators should encourage students to participate and interact actively in the discussions. Although online learning does not encourage students to actively participate, educators can prepare various methods like group discussions and a Question and Answer round. An educator can also pause every 15 to 20 minutes to ask questions or solve queries regarding the lecture. This encourages the students to actively listen and understand the concepts being taught. When students interact with educators, it makes them understand the ongoing topic in a better manner and it motivates them to learn more.

- **Creation of Interactive Educational Content**

Educators should create interactive content for the students to engage them and motivate learning. Appealing and interactive study modules as use on various edtech platforms can be

created with the help of online tools. When the lesson visible on the screen is filled with graphics and interactive slides, the students are able to grasp more of it.

Challenges in Connectivity

When it comes to online learning, technical problems are the prime reason for students to leave the online class amid sessions. Students and educators do not have access to a strong and stable internet connection that is primarily needed for an online lecture. This results in the lecture being paused amid an important topic, hence hindering education for the students. Many a times, when the study material is sent to the students, they cannot easily access it, because poor internet network will not support the download of certain files.

Besides, the connectivity problem is not just limited to internet issues. For a proper online learning setup, a gadget like a laptop or smartphone is vital, but in a developing country like India, not every student has the privilege of possessing these gadgets. Moreover, it is fatiguing for students and educators to adapt to technology instantly, which again acts as a connectivity barrier. Majority of the students do not have sufficient knowledge to use these devices, run applications, or download software on them. Online learning in India is quite uncommon and is basically only for those who have access to it, can easily adapt to it and can afford to buy the expensive gadgets and internet connection or data packs to stay connected and progress in uniformity.

The challenge of connectivity in online learning can be resolved in the following ways:

- **Computer Literacy**

The first and foremost step is to promote computer literacy among educators and learners. Because when people will have a greater insight on using computers, they will easily be able to get connected during the online lectures, and moreover, if there comes a minor issue, they can handle it on their own. Various free of cost programs should be held to educate the students and educators about computer usage.

- **Internet Availability**

Providing advances and enhanced internet connection is one of the prime factors of improving the connectivity issue in online learning. Wi-Fi networks at minimum cost should be available nationwide for students and educators to support online education. An addition of high speed data connectivity should be common in apartments, complexes, societies, slum areas and especially in all the educational institutions. Moreover, cable TV connections should be turned into wired broadband networks.

- **Internet Infrastructure**

The internet infrastructure in India is not well developed for the online learning process, hence more attention should be given to this area in order to improve online education nationwide. The adoption of technologies like 5G and Wifi-6 is very important for the development of online education as it enables both educators and learners to exploit the advantages of it. Gadgets to easily access online learning, like tablets and laptops should be provided to all the students free of cost so they can easily participate in online learning hassle-free.

Hypothesis

H_0 : Connectivity and interaction between students and educators does not affect online learning

H_1 : Connectivity and interaction between students and educators are major challenges in online learning

Research Methodology

This research is conducted using primary and secondary data. The primary data was collected using a questionnaire created with Google forms. A sample size of 80 respondents including students and educators/professors have given their responses which was then analyzed to form opinions regarding the scenario. The secondary data was collected by using online sources like research papers, online magazines, published articles, blogs and e-journals.

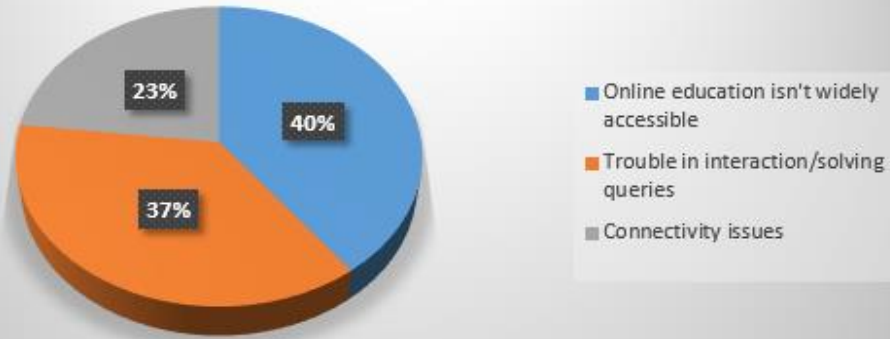
Data Analysis



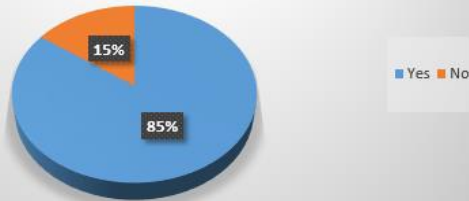
2. Do you think the current COVID-19 pandemic is affecting the education system in India?



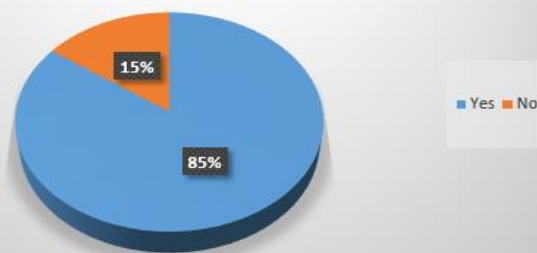
3. If yes, how?

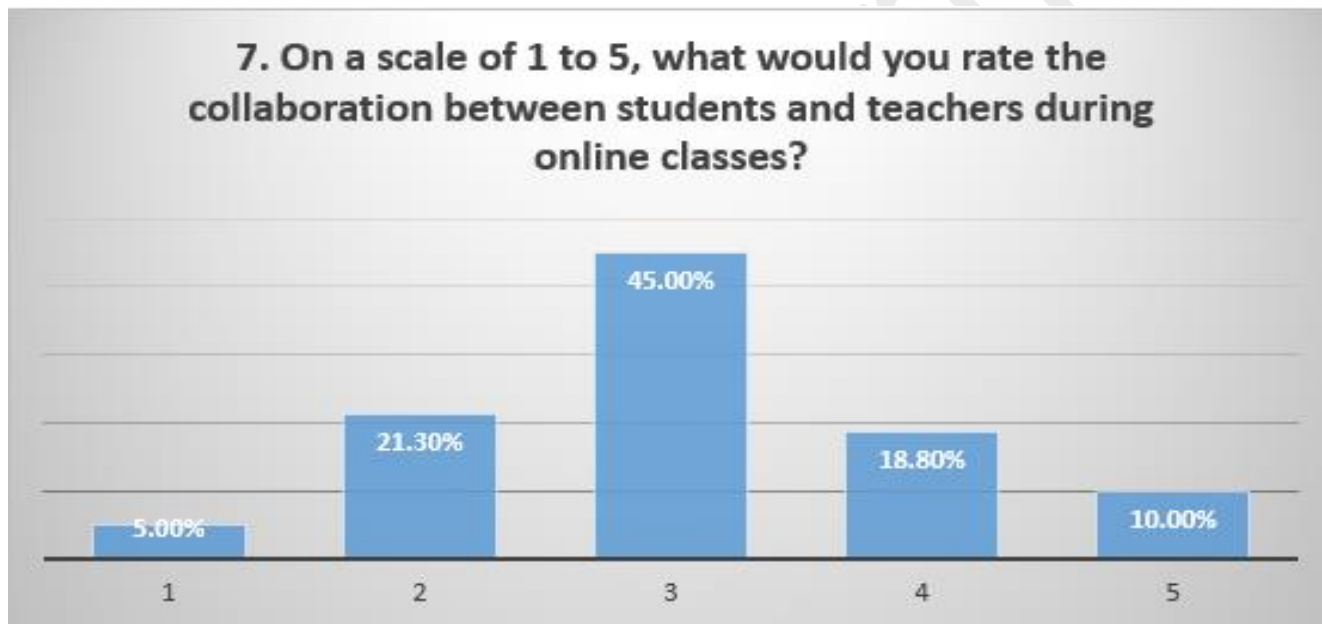
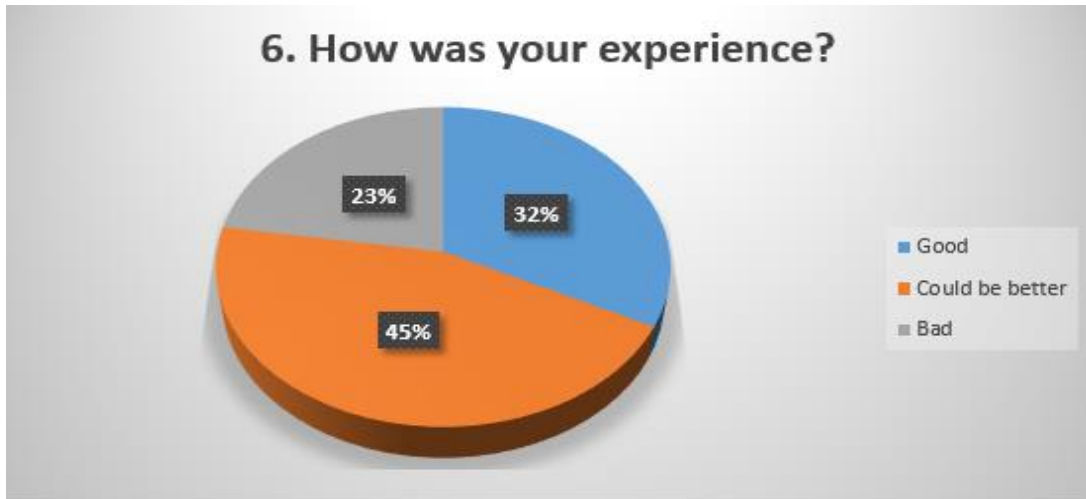


4. Have you attended any online class during the pandemic?

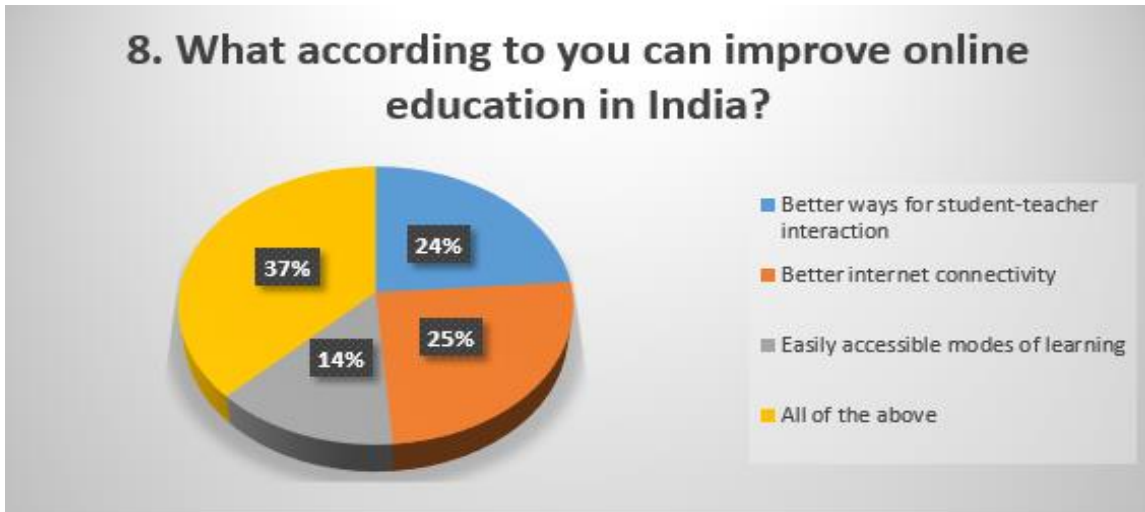


5. Do you have access to a fast internet connection?





The correlation coefficient for the above data signifies that both variables move in the same direction.



Hypothesis Testing

The hypothesis testing is done with the help of data analysis of the eight questions asked to the respondents and online research. Here's a brief analysis of the data present above.

1. The first question asked the respondents whether they were learners or educators. Out of 80 respondents, 13.7% are educators, which is roughly 11 people. The remaining 69 were students. The primary data is based on the responses of these respondents.
2. From the second question, you can see that when asked about if COVID-19 has affected education in India or not, 91.3%, that is majority of the respondents have chosen 'Yes'. This means that people do agree that the education system is highly impacted due to the global pandemic.
3. When asked about the reason for choosing 'Yes' as an answer, 39.7% of the respondents have stated the reason being online education not widely accessible. 37.3% have stated that there is trouble in student-educator interactions, whereas, 23.1% of the respondents have stated the reason being connectivity issues. This shows that the online education system needs to show improvement in all three sectors while paying more attention towards making it accessible to everyone and developing better ways of learning and interacting.
4. The next question asked the respondents whether they attended online lectures during the pandemic. 85% of the respondents marked affirmative to the question while remaining 15% stated they did not attend any online lectures.

5. When asked about the respondent's experience during online lectures, the response was a mixed one, 45%, that is majority of the respondents think that online education can still get better, while 22.5% think that it is appalling.
6. The respondents were asked about connectivity issues during online lectures. From the response, it can be determined that 80% have faced connectivity issues. This a major problem in the online education system in India which needs to be resolved at the earliest.
7. In the following question the respondents were asked to rate the interaction between students and educators in online classes. 45% of the respondents have given a rating of 3 points, whereas 26.3% have given rating below 3 points. This is an indicator that interaction is not at its best during online lectures
8. The last question asked the respondents for their opinion on what improvements should be made to the online education system in India. The respondents were given three options, out of which majority of the respondents have chosen all three for improvement. These options included better internet connectivity, easily accessible modes of learning and better ways for interaction.
9. From the above points and data analysis, it is clear that collaboration between students and educators, and internet connectivity is a major problem in the online education system in India which is affecting the education of students at a great extent.
10. Hence, from the above finding, the null hypothesis stating that 'Connectivity and interaction between students and educators does not affect online learning' is rejected, and the alternative hypothesis stating that 'Connectivity and interaction between students and educators are major challenges in online learning' is accepted.

Major Findings and Conclusion

This research has come to the conclusion that online education system in India is not well established and the educational technology resources are not yet being used adequately. The foundational step towards the scenario it is to promote computer literacy for everyone despite

the age. From the data analysis and secondary research, it was found that collaboration is one important factor in online education that needs a lot of improvements. This collaboration or student-educator interaction can be modernized when educators use new and effective ways to communicate the lessons to the students. This can be done with the help of various online tools that aid educators in creating effective teaching modules. Moreover, encouraging active participation in online lectures is another great way to keep the students engaged and avoid passive behavior.

The next development the online education system needs is better and accessible internet connectivity. Internet is the basic element that plays a major role in the smooth functioning of educational technology resources. But, majority of students and educators face an abundance of connectivity issues during the online sessions. This happens because of the low internet speed in India as compared to other countries. Moreover, frequent internet gateway crashes results in a bad network or no network at all. This disrupts the online lectures and is a bad indicator because the lectures should go on smoothly in order to get everything through to the students easily. High-speed internet connectivity should be accessible to anyone and anywhere in India so that no one misses a chance to get educated. Moreover, upgraded technology should be used to improve the internet network like optic fiber wires to enhance the experience for students and educators. Paying attention to the challenges in the use of educational technology resources like connectivity and collaboration will not only improve the online education system in India, but it will also encourage students to take more initiative in learning. Hence, the literacy rate will increase and there will be a better alternative to classroom learning in India.

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Sustainability in VUCA World through E-Governance

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ABSTRACT

In order to survive in the VUCA World, this paper focuses on the most recent trends and methods in digital media. Digital notebooks, Glacier Storage, and Digital Lockers are the finest market components to maintain with data in recent years when attrition is quite high. We can maintain data in real-time and quickly display historical data thanks to digital lockers. Every cloud service provider has a glacier storage facility that may be used to store and access historical data. Digital lockers will be essential to maintaining a competitive edge in the market and advancing education with the INTRODUCTION of NEP, where vertical and horizontal flexibility is permitted at any moment. The paper is an attempt to discuss and bring a paradigm shift in technology and digital database management by an organization. The paper recommends certain methods and best practices which need to be followed religiously to avoid disaster.

KEYWORDS

E- Governance, VUCA, Cloud Computing, Glacier Storage

INTRODUCTION

Post covid the world has become VUCA i.e. volatile, complex, ambiguous and uncertain which has led to instability in organizations. The attrition rate has increased and people have become insecure about jobs and investments. The framework conditions that challenge sustainable

development are shaped by increasing Volatility, Uncertainty, Complexity, and Ambiguity (VUCA concept). [1]

e-Governance is transforming citizen services by providing access to information and integrating various systems and services between government and citizens. Through its Social Innovation Business, Hitachi has been engaged in transforming governance, businesses, and societies with its strength in Operational Technology (OT) and Information Technology (IT).[7]

Information technology and digital data have had a tremendous expansion during the past ten years. The combination of electronics and telecommunications has expanded stakeholders' options for data transfer, data storage, and information retrieval. In the business sector and in government, these are employed for quick decision-making. It is astounding how much pressure the growing population is putting on social and economic infrastructure as well as public facilities. [4]

As a result of this shift, e-Government becomes crucial to every country in the VUCA World. In India, e-Governance programmes have always had to deal with the dual issues of automating government agencies and bringing online services to the people. The VUCA concept was first introduced by the U.S. military after the end of the Cold War to describe the conditions of a world ever more difficult to predict and rely on, shaped by Volatility, Uncertainty, Complexity and Ambiguity.

Objective of the Study

The study tries to establish a relationship between the e-governance tools and the possibility of the companies to sustain in the VUCA World.

Methodology

The paper is based on secondary research after reviewing articles, papers and reports. The paper also discusses the primary data collected with 40 company heads, executives, departmental

head and their team members to understand the impact of sustainable development through E-governance in VUCA World to sustain in the department and manage the data and people.

E-Governance Techniques

- Shared Drives - These are the folders which are shared with the process owners and they are expected to furnish the latest data in real time.
- Shared Excel – The data can be fetched from multiple writers via shared excel.
- Locking mechanism – The data which is crucial should be denied or granted access to the process owner/employee.
- Digital documents for the future reference – All the documents must be stored in the digital form.
- Regular updates from respective departments for the centralized database – The various departments should update the data on a regular basis.
- Installation of ERP – ERP will connect all the departments and the data duplication can be avoided easily with the ERP where the outcome of one department automatically becomes the input to another department.
- MIS for real time data collection and decision making
- Data analytics tools for tracking the behavior of the employees
- Predictive Analytics
- Diagnostic Analytics
- Prescriptive Analytics

Essentials of Sustainable Management in a VUCA World

Diverse aspects of VUCA need diverse responses and operational strategy. Knowing them is an asset, as sustainable management requires using the right approaches at the right time.

There are a number of common traits that sustainable management embodies. Businesses that want to future proof their setup should focus on 8 essential aspects:

- a) **Get great at sustainable and systemic cost reduction** - Keep costs in check and look for methods to improve system-level productivity. Being excellent at cross-functional management is a must for this, which entails viewing innovation, product development, supply chain operations, and support activities as an integrated whole.
- b) **Build an agile Operating Model** - In a VUCA environment, the connections between the business model(s), operating model(s), and capability model become more crucial. VUCA operations go beyond conventional operations and need real-time comprehension and reaction to changes. Quickness, speed, and the capacity for resource reallocation are requirements for successful businesses.
- c) **Master collaboration** - Strengthen Collaborative relationships in global supply networks.
- d) **Build future-fit capabilities** - Create the skills you need today to be prepared for when the going becomes tough and uneven. However, it is strongly advised to have a reliable operational model in place before joining a learning organisation. Operating in a VUCA context requires the ability to use systems thinking, design thinking, problem solving, and other skills.
- e) **Be conscious about the use of digitalization** - For businesses, digitalization and the connected enterprise present tremendous potential as well as challenging upheaval. While integrating technology offers prospects for efficiency, cost savings, and transferrable production patterns, there is also a significant force on employees from automation and artificial intelligence. Companies must comprehend and provide a solution to the question of how the potential, dangers, and social effects of digitalization are appropriately balanced. Your teams cannot give their all while their jobs are at danger due to digitization.
- f) **Measure impact and sustainable value** - Businesses that are successful base their success on a performance culture that takes into account all facets of value generation. To that degree, a sustainable value scorecard that tracks key performance indicators for the development of economic, social, and environmental value serves as a yardstick for the company's success.

- g) **Dare to innovate (Fail early and responsibly)** - It takes bravery to break free from being cautious and risk-averse (to "make the numbers"). This calls on large multinational corporations to abandon their fear culture and adopt FEAR, which stands for "Fail Early And Responsibly." Be open to trying new things.
- h) **Transform in the right way** - In the commercial world, nothing is fixed anymore. Organisations must develop the skills for effective project management and maintain tight control over their portfolio of initiatives if they are to manage changes successfully. This will guarantee that the most crucial tasks are completed quickly and effectively.

Shared Data

Digital shared excel and documents prepared for the daily work are a good support system located on the cloud drive. This gives a daily report of work done. The data is collected in real time and the staff members of high importance can collate the data.

Collaboration with competitors

Mergers, acquisition and Collaboration with other companies and sharing their documents and data and employees can be one method to sustain in the competitive world.

Knowledge of IT Skills

Having a sound knowledge of Shared Drives, Shared Excel , Locking mechanism data transfer, filter and uploading on cloud is a mandatory task nowadays.

Positive Attitude towards Life

The person who wants to survive must have a positive attitude towards Life and work. Darwin's theory of the 'Survival of the Fittest' will be applicable if the person has a positive attitude towards the situation and will to get out of the uncertainty and complexity.

Integrity, Accountability and Professionalism at every level

The data has to be process driven and process owner has to be held accountable for the data in the prescribed format. The need to be downloaded in real time for a backup and uploaded in real time for the reference purpose.

Glacier Storage

The Amazon S3 Glacier storage classes are built for data archiving, providing you with the highest performance, most retrieval flexibility, and the lowest cost archive storage in the cloud. All S3 Glacier storage classes provide virtually unlimited scalability and are designed for 99.999999999% (11 nines) of data durability. The S3 Glacier storage classes deliver options for the fastest access to your archive data and the lowest-cost archive storage in the cloud.

Three archive storage classes are available, each of which is tailored for a certain access pattern and length of storage. Choose the S3 Glacier Instant Retrieval storage class, which offers the cheapest storage with millisecond retrieval, for archive material that requires quick access, such as medical photographs, news media assets, or genomics data. On the other hand, S3 Glacier Flexible Retrieval (formerly S3 Glacier), which offers retrieval in minutes or cost-free bulk retrievals in 5–12 hours, is the best option for archive data that does not require immediate access but needs the flexibility to retrieve sizable sets of data at no cost, such as backup or disaster recovery use cases.

To save even more on long-lived archive storage such as compliance archives and digital media preservation, choose S3 Glacier Deep Archive, the lowest cost storage in the cloud with data retrieval within twelve hours.[8]

Conclusion

We need long-term answers since the current reality is unstable, unclear, complicated, and confusing. Therefore, e-governance is excellent governance in business and requires a paradigm shift in technology, training for the same among the workforce, and defined positions for individuals who are resistant to change. Change management and electronic governance are required in the VUCA World. With the aid of technologies, all the data will be gathered in real-time, bringing openness and accountability. The tools are durable and will be essential to maintaining no matter how high the attrition. We need good clean data for successful governance since the nation with the cleanest data is also the richest. Decisions will be impacted by this and finally quality assurance and the objective of that organization will sustain in the Vuca World.

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A Study on Currency Derivatives in Foreign Exchange Market among Consumer in Mumbai

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ABSTRACT

The foreign exchange market is a complex market that is characterized by its volatility and unpredictability. Currency derivatives have become an increasingly popular tool for managing foreign exchange risk, but their uses and effects on the market are not well understood. This research paper aims to provide an analysis of the use of currency derivatives in the foreign exchange market and its effects on the market. The research methodology employed in this paper is a review of existing literature and empirical data analysis. The paper begins with an INTRODUCTION to the foreign exchange market and the need for currency derivatives. It then examines the types of currency derivatives and their uses, including forward contracts, futures contracts, options contracts, and swaps. The paper then explores the effects of currency derivatives on the foreign exchange market, including their impact on market liquidity, volatility, and price discovery. It also discusses the benefits and drawbacks of currency derivatives and the role of regulation in the market. The findings of this research paper suggest that currency derivatives have become an important tool for managing foreign exchange risk, especially for businesses and financial institutions. However, their use can also have unintended consequences, such as increased market volatility and reduced transparency. The paper concludes with a discussion of the future of currency derivatives in the foreign exchange market and the need for continued research and regulation to ensure their responsible use.

KEYWORDS: currency derivatives, foreign exchange market, risk management, volatility, liquidity, regulation.

INTRODUCTION

Currency derivatives are financial instruments that are used to manage currency risk in the foreign exchange market. The foreign exchange market is a global marketplace where different currencies are traded against each other. Companies, individuals, and institutions often engage in foreign exchange transactions to buy or sell goods and services, invest in foreign assets, or to speculate on currency movements. Currency derivatives, such as forwards, futures, options, and swaps, are contracts that allow parties to manage their exposure to currency risk by locking in exchange rates for future transactions. They enable market participants to hedge against potential losses due to currency fluctuations and to take advantage of favorable exchange rate movements.

For example, a company that imports goods from a foreign country and needs to make a payment in a foreign currency in the future can use a currency forward contract to lock in a specific exchange rate today. This protects the company from potential losses due to unfavorable exchange rate movements in the future. Currency derivatives are also used for speculative purposes, as investors can take positions on expected currency movements and profit from them if their predictions are correct. Overall, currency derivatives are an important tool for managing currency risk in the foreign exchange market and can provide opportunities for market participants to improve their investment returns. However, they also come with risks and complexities that require careful consideration and understanding before engaging in their use.

The foreign exchange market is the largest financial market in the world, with an average daily turnover of over \$6.6 trillion. It is a complex market that is characterized by its volatility and unpredictability. Currency derivatives have become an increasingly popular tool for managing foreign exchange risk, but their uses and effects on the market are not well understood. This research paper aims to provide an analysis of the use of currency derivatives in the foreign exchange market and its effects on the market.

THE NEED FOR CURRENCY DERIVATIVES

The foreign exchange market is characterized by the constant fluctuation of currency values, which can create significant risk for businesses and financial institutions. Currency derivatives offer a way to manage this risk by allowing parties to lock in a future exchange rate for a transaction. This can help reduce the uncertainty associated with foreign exchange transactions and protect businesses from unexpected currency fluctuations.

Currency derivatives serve an important purpose in the foreign exchange market by providing a means to manage currency risk. Here are some of the main reasons why currency derivatives are needed:

1. **Hedging against currency risk:** Companies and individuals that engage in foreign exchange transactions are exposed to currency risk, which arises from fluctuations in exchange rates. Currency derivatives, such as forwards and options, can be used to hedge against potential losses by locking in exchange rates for future transactions.
2. **Improving investment returns:** Currency derivatives can also be used for speculative purposes, as investors can take positions on expected currency movements and profit from them if their predictions are correct. This provides opportunities for market participants to improve their investment returns.
3. **Facilitating international trade:** Currency derivatives also play a crucial role in facilitating international trade by providing a means for buyers and sellers to manage currency risk. This helps to reduce the uncertainty and costs associated with international trade transactions.
4. **Managing currency exposure:** Multinational companies with operations in different countries are exposed to currency risk due to fluctuations in exchange rates. Currency derivatives can be used to manage this exposure by hedging against potential losses and reducing uncertainty.
5. **Enabling financial innovation:** Currency derivatives have also enabled financial innovation in the foreign exchange market by providing new ways to manage currency risk and create customized financial products.

THE REGULATORY FRAMEWORK GOVERNING CURRENCY DERIVATIVES

The regulatory framework governing currency derivatives in India is primarily overseen by the Reserve Bank of India (RBI) and the Securities and Exchange Board of India (SEBI). The regulations aim to ensure the safety and transparency of the market, and protect investors from fraud and manipulation. Some of the key regulations governing currency derivatives in India include:

1. **Eligibility:** Only entities that are eligible under the regulations can participate in the currency derivatives market. These entities include residents, non-residents, banks, financial institutions, and corporate bodies.
2. **Product approval:** Before introducing any new currency derivative product, the stock exchange or clearing corporation must obtain approval from the SEBI.
3. **Margin requirements:** The RBI and SEBI prescribe margin requirements for currency derivative trades to ensure that market participants have sufficient funds to cover their obligations.
4. **Position limits:** The RBI sets position limits on currency derivatives contracts to prevent excessive speculation and ensure orderly trading.
5. **Reporting requirements:** Market participants are required to report their currency derivative transactions to the relevant authorities to ensure transparency and monitor compliance with regulations.
6. **Surveillance and enforcement:** The RBI and SEBI have surveillance and enforcement mechanisms in place to detect and prevent market manipulation, insider trading, and other illegal activities.

Overall, the regulatory framework governing currency derivatives in India is aimed at promoting fair and transparent trading and protecting market participants from undue risk.

TYPES OF CURRENCY DERIVATIVES

There are several types of currency derivatives, including forward contracts, futures contracts, options contracts, and swaps. Forward contracts are agreements between two parties to exchange currencies at a predetermined rate on a future date. Futures contracts are similar to forward contracts, but they are traded on exchanges and standardized in terms of contract size and delivery date. Options contracts give the buyer the right, but not the obligation, to buy or sell a currency at a predetermined price on a future date. Swaps are agreements between two parties to exchange currencies at a predetermined rate for a set period of time.

There are several types of currency derivatives that are commonly used in the foreign exchange market. Here are some of the main types:

1. **Currency forwards:** A currency forward is an agreement between two parties to exchange a specified amount of one currency for another at a specified exchange rate on a

future date. Currency forwards are commonly used to hedge against currency risk and to lock in exchange rates for future transactions.

2. **Currency futures:** Currency futures are contracts that require the buyer to purchase a specific amount of a currency at a predetermined price and date in the future. Currency futures are traded on exchanges and are standardized in terms of contract size, delivery date, and settlement procedures.
3. **Currency options:** A currency option is a contract that gives the holder the right, but not the obligation, to buy or sell a specified amount of one currency for another at a predetermined exchange rate on or before a specified date. Currency options are commonly used to hedge against currency risk and to take advantage of favorable exchange rate movements.
4. **Currency swaps:** A currency swap is an agreement between two parties to exchange a specified amount of one currency for another at an agreed-upon exchange rate, with the obligation to reverse the transaction at a later date. Currency swaps are commonly used to manage currency exposure and to reduce currency risk.
5. **Non-deliverable forwards (NDFs):** NDFs are similar to currency forwards, but they are settled in a different currency, usually the US dollar. NDFs are commonly used to hedge against currency risk in emerging markets where local currency derivatives may not be available.

USES OF CURRENCY DERIVATIVES

Currency derivatives are primarily used for risk management purposes, especially by businesses and financial institutions that engage in international trade or investment. For example, a company that imports goods from overseas may use a forward contract to lock in a future exchange rate, reducing the risk of unexpected currency fluctuations. Financial institutions may use currency derivatives to hedge against currency risk in their investment portfolios.

EFFECTS OF CURRENCY DERIVATIVES ON THE FOREIGN EXCHANGE MARKET

The use of currency derivatives can have both positive and negative effects on the foreign exchange market. On the one hand, they can increase market liquidity by providing additional trading opportunities and reducing transaction costs. They can also help to stabilize exchange rates by reducing the impact of speculative trading. On the other hand, they can increase market volatility by amplifying market movements and creating additional sources of risk. They can also reduce transparency in the market by allowing parties to (Bhagawan & Lukose, 2017).

Currency derivatives have a significant impact on the foreign exchange market. Here are some of the effects of currency derivatives on the foreign exchange market:

1. **Increased liquidity:** Currency derivatives provide market participants with new opportunities to trade and manage currency risk, which can increase the overall liquidity of the foreign exchange market. This increased liquidity can result in more efficient pricing of currency pairs, tighter bid-ask spreads, and lower transaction costs.
2. **Greater market efficiency:** The use of currency derivatives can increase the efficiency of the foreign exchange market by providing market participants with new tools to manage currency risk and create customized financial products. This can lead to more accurate pricing of currency pairs, reducing the potential for market inefficiencies.
3. **Increased volatility:** Currency derivatives can also contribute to increased volatility in the foreign exchange market. Speculative trading using currency derivatives can result in large currency movements, which can impact exchange rates and increase market volatility.
4. **Systemic risk:** The use of currency derivatives can also contribute to systemic risk in the financial system. The interconnectedness of the financial system means that large currency movements can have a ripple effect across the entire system, potentially leading to widespread financial instability.
5. **Regulatory challenges:** Currency derivatives are complex financial instruments that can be difficult to regulate. The use of these derivatives can create challenges for regulators in terms of ensuring market transparency, preventing market abuse, and managing systemic risk.

RISKS OF CURRENCY DERIVATIVES

While currency derivatives can provide several benefits, they also carry risks. One significant risk is the potential for counterparty default, which can result in significant financial losses for the company. Another risk is the potential for market volatility, which can cause the value of the currency derivative to

fluctuate significantly (Das & Kumar, 2023). Additionally, companies may face legal and regulatory challenges when using currency derivatives in foreign markets.

Currency derivatives come with various risks that market participants should be aware of. Here are some of the main risks of currency derivatives:

1. **Market risk:** Currency derivatives are subject to market risk, which is the risk of losses resulting from changes in market conditions. The value of a currency derivative can be affected by a range of factors, including interest rates, inflation, geopolitical events, and economic indicators.
2. **Credit risk:** Currency derivatives involve counterparty risk, which is the risk that one party to a contract will default on their obligations. If a counterparty defaults, the other party to the contract may be left with a significant loss.
3. **Liquidity risk:** Some currency derivatives can be illiquid, meaning that it may be difficult to find a buyer or seller at a fair price. This can result in increased transaction costs and make it harder to manage currency risk.
4. **Operational risk:** Currency derivatives involve various operational risks, including errors in trade execution, failures of trading systems or processes, and fraudulent activity.
5. **Legal and regulatory risk:** Currency derivatives are subject to various legal and regulatory risks, including changes in regulations, litigation, and the potential for market abuse.
6. **Basis risk:** Basis risk is the risk that the underlying asset being hedged using a currency derivative does not perfectly match the hedging instrument. This can result in losses if there is a significant difference between the hedged asset and the derivative used to hedge it.

OBJECTIVES OF THE STUDY

The study of currency derivatives is aimed at achieving several objectives, including:

- To understand the risks and benefits associated with these instruments.

- To identify the different types of currency derivatives that are available, including forwards, futures, options, and swaps.
- To understand effective hedging strategies to manage currency risk.
- To understand the regulatory framework governing these instruments.

LITERATURE REVIEW

The literature on currency derivatives in foreign exchange markets is extensive and covers a wide range of topics. Below is a brief overview of some of the key findings in this area:

Srivastava (2015) conclude that the current paper investigates the use of currency derivatives in order to comprehend the driving factors behind their use. The overall analysis shows that debt ratios such as foreign currency borrowing and long term debt ratio, as well as income ratios such as export ratio and profit before tax, are crucial.

Katiyar, Saurabh, Srivastava (2011) conclude that the study is divided into four major sections: 1. India's Foreign Exchange Policy. 2. The Indian Currency Derivative Market. 3. Conduct a test for covered interest parity in Indian markets. 4. Indian currency market liquidity. It focuses on the global issues connected with pegging currencies to a fixed currency. The features, legal framework, and goods provided. This report delves deeper into the currency products provided by the NSE and tests the covered interest parity for the NSE's futures. The goal is to find any arbitrage possibilities that exist in the market. Finally, we examine the liquidity of Indian currency markets by comparing amounts traded in India and other global exchanges.

Visvanathan (1998) conclude that investigate whether firms use foreign currency swaps for hedging or speculation. Using a sample of all S&P 500 non-financial rms from 1993, we find strong proof that rms use foreign currency derivatives for hedging; the use of derivatives is significantly associated with rms' use of derivatives.

Significantly reduces the exchange-rate risk that businesses endure. We also discover that the decision to use derivatives is influenced by exposure factors (i.e., foreign sales and foreign trade) as well as variables largely associated with optimal hedging theories (i.e., size and R&D expenditures), and that the level of derivatives used is influenced solely by a firm's exposure through foreign sales and trade.

John Wiley & Sons (2019) conclude that as globalization reshapes the field of corporate finance, international finance is now an essential component of any financial executive's fundamental

literacy. International Corporate Finance covers the international monetary system, international funding, currency risk management, and cross-border valuation in depth. Furthermore, the book provides valuable insight into how disintermediation, liberalization, and securitization are reshaping global capital markets. What distinguishes International Corporate Finance? Each chapter begins with a real-life mini-case to help readers connect theoretical concepts to managerial circumstances. Simple decision rules and "how to do" answers to important managerial problems are provided. Cross-border Mergers & Acquisitions, Project Finance, Islamic Finance, and Asian Banking & Finance are entirely novel chapters that are not covered in any other textbook.

Bartram and Karolyi (2006) conclude that the use of currency derivatives can reduce foreign exchange risk: Numerous studies have shown that the use of currency derivatives can reduce foreign exchange risk for firms operating in foreign markets. A study found that firms that used currency derivatives had lower exchange rate exposure than those that did not.

Minton and Schrand (1999) conclude that currency derivatives can also increase risk: While currency derivatives can help to manage foreign exchange risk, they can also increase risk if not used correctly. A study found that the use of currency derivatives was positively related to the risk of financial distress.

De Santis and Gerard (1997) conclude that the effectiveness of currency derivatives depends on market conditions: The effectiveness of currency derivatives in managing foreign exchange risk depends on market conditions, such as the degree of exchange rate volatility. A study found that currency derivatives were most effective in reducing foreign exchange risk during periods of high volatility.

Bodnar, Hayt and Marston (1998) conclude that currency derivatives can have an impact on firm value: Several studies have examined the impact of currency derivatives on firm value. A study found that firms that used currency derivatives had higher market values than those that did not.

Choi and Prasad (1995) conclude that regulation can impact the use of currency derivatives: The use of currency derivatives in foreign markets is subject to regulation, and regulatory changes can impact their use. A study found that the INTRODUCTION of new regulations in the US reduced the use of currency derivatives by US corporations.

RESEARCH METHODOLOGY

The methodology description for conducting the study is described as under:

1. RESEARCH DESIGN

Descriptive research design is used for the present study. As the study quantitative in nature as it includes various numerical data, facts and figures which will be helpful to draw a conclusion using statistical tools and techniques.

2. SAMPLING DESIGN

Sampling Method

For selection of sample simple random sampling method is used. It allows us to make strong statistical inferences about the study.

Sampling Size

From the simple random sampling method 29 sample responses used for the present study.

Nature and Source of Data

This study is purely based on primary data. The data collection is done through by a self made Email questionnaire.

Statistical Tool

Tools used for the present study is ANOVA.

EMPERICAL DATA/ DATA COLLECTION:

ANOVA SINGLE FACTOR

Anova: Single Factor						
SUMMARY						
Groups	Count	Sum	Average	Variance		
Column 1	28	68	2.428571	1.365079		
Column 2	28	68	2.428571	1.068783		
Column 3	28	55	1.964286	1.072751		
ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	4.02381	2	2.011905	1.721237	0.185321	3.109311
Within Groups	94.67857	81	1.168871			
Total	98.70238	83				

Interpretation: Here, we can see that the F-value is less than the F-critical value for the alpha level selected that is 0.05. Therefore, we have evidence to accept the Null Hypothesis.

Another measure for ANOVA is the P-value. If the P-value is greater than the alpha level selected, we accept the Null Hypothesis and reject the alternative hypothesis.

We conclude that there is no significant difference in the attitudes or behavior of consumers towards currency derivatives across the different groups.

CORRELATION

	Column 1	Column 2
Column 1	1	
Column 2	0.36138	1

Independent variable: Currency derivatives

Dependent variables: Lack of knowledge and understanding, High volatility, Liquidity issues and Margin requirements.

Interpretation: Based on the table, we can see that the correlation between Column 1 and Column 2 is -0.361. This suggests that there is a negative correlation between the two variables. In other words, as the values in Column 1 increase, the values in Column 2 tend to decrease, and vice versa.

The value between the cell is -0.361377375, which indicates a negative correlation between "Column 1" and "Column 2". The closer the value is to -1, the stronger the negative correlation would be, but this value indicates a moderate negative correlation. Therefore, it can be concluded that there is a moderate negative relationship between "Column 1" and "Column 2".

LIMITATIONS OF THE STUDY

Currency derivatives in the foreign exchange market have some limitations, including:

Limited availability: Currency derivatives are not widely available to small and medium-sized businesses and individuals, which limits their ability to manage currency risk.

Counterparty risk: Currency derivatives require a counterparty to take the opposite side of the trade. This means that if the counterparty defaults, the party holding the derivative may suffer significant losses.

Volatility risk: Currency derivatives are sensitive to market volatility, which can lead to unexpected losses. In periods of extreme volatility, currency derivatives may not be effective in managing currency risk.

Complexity: Currency derivatives can be complex financial instruments that require specialized knowledge to understand and use effectively. This complexity can make them inaccessible to many market participants.

Currency derivatives, such as currency futures, options, and swaps, are financial instruments that allow traders to manage their exposure to currency risk in foreign exchange markets. While these derivatives have many benefits, there are also limitations to their effectiveness in mitigating risk.

One limitation of currency derivatives is that they may not provide complete protection against currency risk. For example, in the case of unexpected events or economic shocks, the value of currency derivatives may not move in the expected direction, leading to losses for the trader. Another limitation is that currency derivatives can be complex and difficult to understand

for some investors. This can lead to misunderstandings and mistakes, potentially resulting in losses.

Additionally, currency derivatives may not be accessible to all investors due to high entry barriers, such as high capital requirements and regulatory restrictions.

CONCLUSION

Currency derivatives are needed to manage currency risk and provide opportunities for market participants to improve their investment returns. They are essential for facilitating international trade and enabling financial innovation in the foreign exchange market. It provides market participants with a variety of tools to manage currency risk and create customized financial products. The choice of which type of derivative to use will depend on the specific needs of the market participant and the nature of the underlying currency exposure.

Currency derivatives have both positive and negative effects on the foreign exchange market. While they can increase market efficiency and liquidity, they can also contribute to increased volatility and systemic risk. As such, it is important to carefully monitor and regulate the use of currency derivatives to ensure their benefits are maximized while minimizing their potential negative impacts.

Currency derivatives have both positive and negative effects on the foreign exchange market. While they can increase market efficiency and liquidity, they can also contribute to increased volatility and systemic risk. As such, it is important to carefully monitor and regulate the use of currency derivatives to ensure their benefits are maximized while minimizing their potential negative impacts. It is complex financial instruments that come with a range of risks. Market participants should carefully assess these risks and consider whether the use of currency derivatives is appropriate for their particular needs and risk appetite. It is important to use these derivatives with caution and to carefully monitor and manage any associated risks.

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Practices to Sustain Women Entrepreneurs & Economic Development

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ABSTRACT

Women's are nuclei of a nation. Women are the true creators and shapers of a country's fate. The level of civilization and advancement of a society can be determined by the position and stature of women within it. Despite more than fifty years having elapsed since gaining independence, the progress of women entrepreneurship has not kept pace with other developmental indicators. They can take on all kinds of responsibilities at different stages of their lives. Men and women share responsibilities. The term "Women Entrepreneurship" means leading and managing a woman's business. Rapid changes in urbanization, education and technology have significantly changed the role of women. A country's economy can slow down if women entrepreneurs are not well known in their businesses. Women entrepreneurs need to be given equal opportunities to demonstrate their talents, knowledge, etc. so women should challenge themselves in the domestic and global markets for the survival and sustainable growth of India's commerce, management and economy. The development of the entire country has been contributed to by women. At their best, women contribute in many different areas, such as banking, industry, government, and even at the political level. Women in India are deprived of various facilities such as proper education, financial support and family restrictions. Although the Indian government has implemented numerous policies in this regard, there is still significant progress to be made. This research paper has been prepared to understand the face of women entrepreneurship in today's world and the role of the Government of India in the overall development of women entrepreneurship.

KEYWORDS: Entrepreneurship, Women Entrepreneur, Economic Development

INTRODUCTION

In the past, women focused on their traditional activities. But over time, they joined their hands with men and contributed largely not only to the family but also to the business activities. The

government has also encouraged them through various programs for their self-employment as well as employment for others related to these startup programs. In this regard, some female entrepreneurs have proven their potential and are doing better than men. Female entrepreneurship is the process by which women actively gather all the necessary resources to start a business, take risks and also face different challenges to overcome difficulties. It helps to provide jobs to others and run the business independently.

In order to overcome societal limitations, numerous women have established their own businesses. Irrespective of the prevailing circumstances, female business owners can attain financial autonomy. According to statistics from the past two decades, the number of women entrepreneurs has surged by 114%. Empowering women is imperative as their journey and value system contribute towards the development of a healthy family, society, and ultimately, a prosperous nation.

OBJECTIVES OF THE STUDY

- To develop small and medium-sized businesses to create jobs and expand the scope of business ownership.
- To examine the roles of women entrepreneurs in economic development.
- To get to know the various government schemes for women entrepreneurs.
- To learn the different factors that empowers women to become entrepreneurs.

LITERATURE REVIEW

- According to **Nawaz** (2009) and **Debnath** et al. (2020), woman's entrepreneurship and women's empowerment harmonize each other. Woman's entrepreneurship is considered an essential tool in enabling women's empowerment.
- According to **Sharma Y** has shown a general study on women entrepreneurs in India. They have brought attention to the current social norms that necessitate prioritization and awareness
- According to **Goyal M & Parkash** The paper sheds light on the challenges faced by the lower strata of Indian society, which consequently impacts women entrepreneurship. It delves into the concept of women entrepreneurs, factors that drive women towards entrepreneurship, barriers to their progress, recommendations for their growth, government initiatives to promote and develop women entrepreneurship in India, and features a brief case study on women entrepreneurs (Ailawadi, D. A).

RESEARCH METHODOLOGY

Primary data A structured questionnaire was designed to gather primary data from individuals of varying age groups via a general public survey. Questionnaire is used to collect data from the target audience and gather insights into their opinions and feedback. 4 Questions each from 25 respondents were collected totaling to 100 samples. The questionnaire was distributed to respondents both directly and through the use of Google Form. **Secondary data** Various sources including journals, articles, e-journals, etc., were utilized to acquire secondary data.

WOMEN ENTREPRENEURSHIP AND ECONOMIC DEVELOPMENT

We have seen a significant increase in the number of entrepreneurs, with the number of female entrepreneurs increasing dramatically. Rather than relying on external opportunities, female entrepreneurs have been motivated by the aspiration to create something of their own, leading them to establish successful enterprises and set new standards of innovation and excellence in various industries. Another prominent factor that women entrepreneurs leverage to drive economic and business growth is the promotion of empathy-based structures. Establishing proper structures for the team or employees and comprehending the workflow can enhance work efficiency, productivity, and ultimately, drive business growth. Women have helped drive economic growth through a better understanding of the factors that deserve special attention. Human-driven processes are areas to consider, and when we reduce their difficulties, we will overcome obstacles. People \geq Business that in itself clarifies the co-dependency relationship between people and businesses. We can actively create a brighter future for female entrepreneurs and professional women, which will lead to a revolutionary acceleration in national economic growth. It is a fact that empowering women as entrepreneurs benefits the entire society, as women entrepreneurs contribute to not only the economic development but also the social development of the community. Agarwal, B. N. (2022, May 27).

WOMEN ENTREPRENEURSHIP: PROBLEMS, SOLUTIONS & FUTURE PROSPECTUS OF DEVELOPMENT

Problems and challenges may be varied and differ from enterprises to enterprise, place to place and time to time.

i) **Problem:** Problem of family and social norms like dual responsibility towards family, gender role stereotyping, social discrimination, traditional attitude of man, dependability. -**Solution:** Monopoly towards male centered business model should be broken and accept women as entrepreneurs.

ii) **Problem:** women are not always equipped with adequate knowledge and skills to tap opportunities. They lack publicity to practical aspects of organizing a business. This further deepens their separation and minimizes their self-esteem for achieving success. It is crucial to address these gaps in knowledge, skills and attitudes through capacity building programs. - **Solution:** These entrepreneurship development and management programs must have adequate hands-on components that are supervised by existing successful entrepreneurs themselves. Practical aspects of finance and accounting, technology and systems and leadership and negotiation skills are important elements to any capability building initiative Kuadli, J. (2022, January 17).

iii) **Problem:** The third issue is that of networking. Creating wide and sustainable association of women producers and customers is crucial to build and take care of women entrepreneurship. – **Solution:** The change can come through collaborative efforts of business associations, organizations and individuals. Also through affirmative action wherein for example, organizations implement a procurement policy where a certain percentage of their goods and services will be compulsorily sourced from women-owned businesses. Six companies, Accenture, Intel, Marriott, HP, Wall Mart and IBM, are now looking to align their procurement policy towards women-owned businesses.

Future Outlook: The number of women entrepreneurs is increasing each year, and if the present trend continues, it is probable that the percentage of women entrepreneurs will double in the next five years, making a significant contribution to the entrepreneurial workforce in India. The emergence of women entrepreneurs and their contributions to the national economy are evident in India. In order to make sure that the development of women entrepreneurship takes place, as fast as possible they must be provided with special support and incentives from the government and other related agencies.

VARIOUS INDIAN GOVERNMENT INITIATIVES SUPPORTING WOMEN ENTREPRENEURS

- **The Women Entrepreneurship Platform (WEP)** NITI Aayog has launched an initiative to provide an associate degree system for aspiring young women entrepreneurs all over India, and has partnered with SIDBI to promote and implement this program.
- **Bharatiya Mahila Bank** was established with the objective of providing financial assistance to women in need who aspire to start their own business. In 2017, it merged with SBI. The bank provides loans up to 20 lakhs to women entrepreneurs in the manufacturing sector.

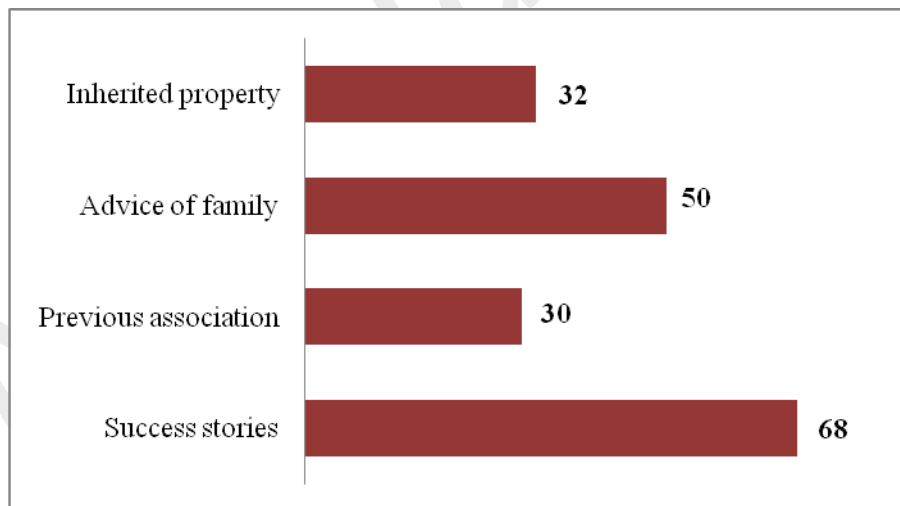
- **Mudra Yojana Scheme** is one of the most significant schemes launched by the Government of India to encourage women entrepreneurs who wish to start small businesses such as beauty parlors, retail shops, or tuition centers with minimal investment.
- Udyogini Scheme the concept behind this theme is to assist women entrepreneurs from economically troubled backgrounds to become independent.

QUESTIONNAIRE: ANALYSIS OF DATA WITH TABULAR AND PIE CHART PRESENTATION

Primary data were collected through a general public survey with the help of these data I have tried to interpret questionnaire.

Q.1) In your opinion what are the factors influence the process of starting a business?

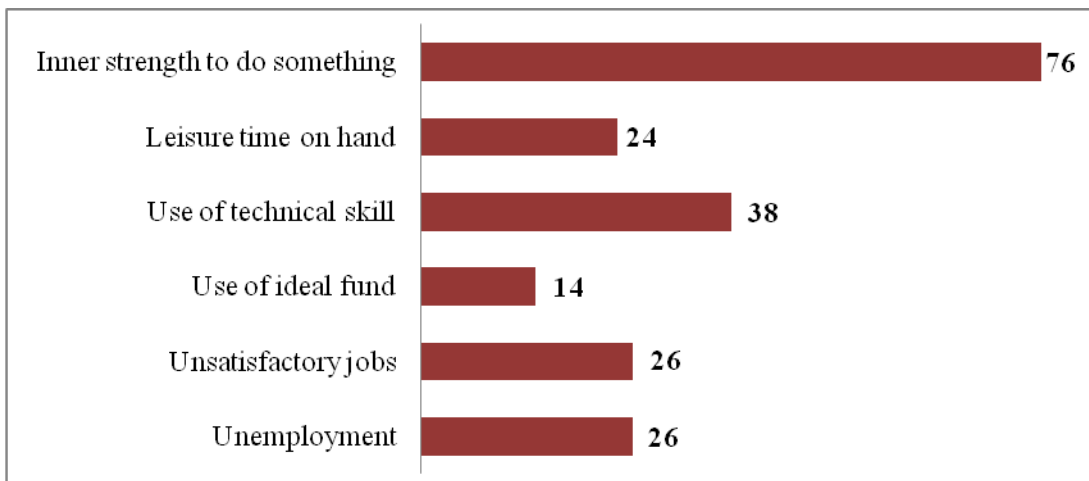
- Success stories
- Previous association
- Advice of family
- Inherited property



Result: The above diagram states that, 32% of people feel that inherited property influence women's to start a business, 50% influence because of family advice, 30% women influence with previous association & start a business. 68% of women's influence by success stories and they start their own business.

Q.2) What do you think is a strong reason to start a business by women?

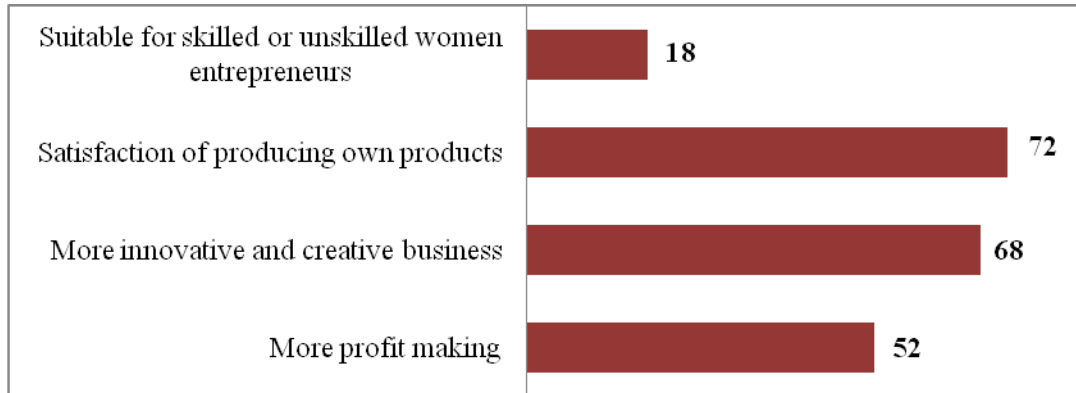
- a) Unemployment
- b) Unsatisfactory jobs
- c) Use of ideal fund
- d) Use of technical skill
- e) Leisure time on hand
- f) Inner strength to do something



Result:The above diagram states that, 76% of people feel women’s start a business because of inner strength to do something.

Q.3) In your opinion, what are the reasons for various opportunities for women entrepreneurs in manufacturing enterprise?

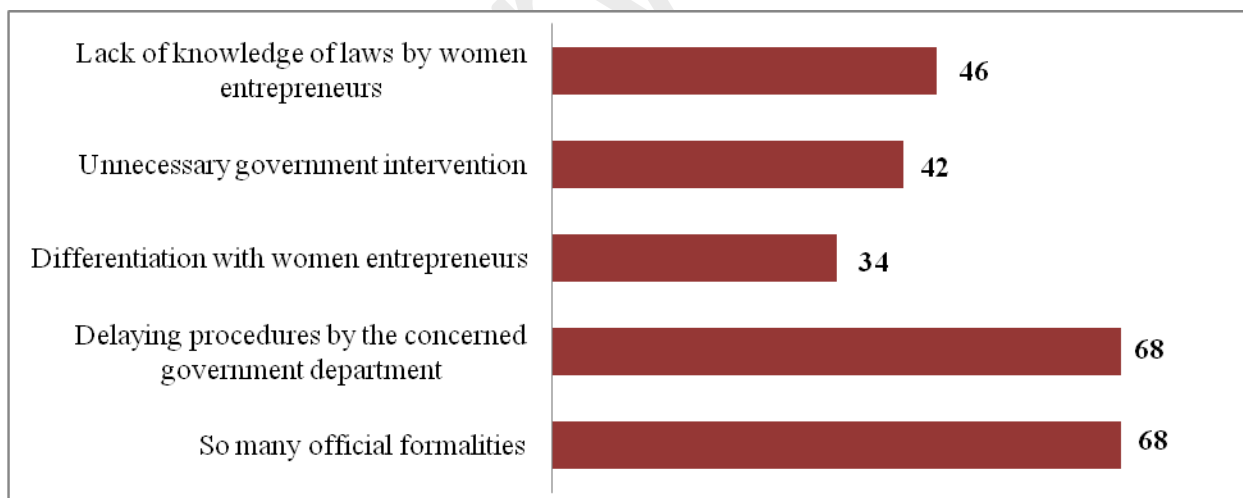
- a) More profit making
- b) More innovative and creative business
- c) Satisfaction of producing own products
- d) Suitable for skilled or unskilled women entrepreneurs



Result: Satisfaction of producing own products and women entrepreneurs finds starting a business is more innovative and creative.

Q.4) What are the difficulties while taking the help from government?

- So many official formalities
- Delaying procedures by the concerned government department
- Differentiation with women entrepreneurs
- Unnecessary government intervention
- Lack of knowledge of laws by women entrepreneurs



Result: A large number of official formalities are the major problem in women availing government services. Efforts should be made to minimize delays in procedures by the authorities involved, in order to facilitate and encourage entrepreneurship in both rural and urban areas.

CONCLUSION

Women 'shave an extraordinary power of being the progressive agents of an *economic* change, an *economy* that allows *women* to grow and *build up*. Women entrepreneurship is recognized as a vital catalyst for economic growth and development. Female entrepreneurs not only create job opportunities for themselves but also for others, offering innovative solutions to organizational and managerial challenges within society. Women entrepreneurs frequently face gender based barriers to starting and growing their businesses, like discrimination, responsibility of family and cultural practices as well as lack of access to formal finance, restricted mobility, right to use to information and networks etc.

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Human Resource Management Practices for Sustainable Business Growth

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ABSTRACT

"One machine can do the work of fifty ordinary men however, no machine can do the work of one extraordinary man."- Elbert Hubbard

The above quote goes very well versed with the facts and figures comprehended in this research paper which is about achieving sustainable business growth through unbeatable human resource management practices. This study throws light on 'how time can be bought and multiplied by minimizing the cost to the company and maximizing the attainable profits. Analytical research on human nature, attitude, perceptions and behaviour of different personalities depicts that human nature is very much dynamic and becomes a vital part for the development of an organization. Aspects like work life balance, succession planning, aligning business goals with individual goals, retention and many more alike elements plays an important role in order to attain parity in terms of efficiency and effectiveness for a business to sustain.

KEYWORDS: efficiency, effectiveness, Cost management, sustainable business, analysis, individual goals, organizational goals.

OBJECTIVES

1. HR and I.T Collaboration

Covid-19 has forced the HR to rethink of all the 'best practises' which they knew so far. Wherein, 64% of the employees confronted that they feel more comfortable and less stressed by working from home due to which the MNCs have adapted the ideal hybrid model of work which expects an employee to work from home for 3 days and 2 days from office. Hereby few news articles highlights that not more than 25% of TCS employees will need to work from the office after a 2025. Here, the top-level management will inculcate facilitating teamwork and

collaboration in the virtual environment, we can expect this till the year 2025. This study proves that Human resources practises should equally aligned with the custom trends and Technologies like analyse workforce data and cloud HR solutions.

2. Trend of “Employee First”

It is a matter of fact that no business can survive without happy customers who will get you profit and satisfied employees who will help the business to become a six sigma company. Putting your “employees first” doesn’t make your goals uncertain states ‘Vineet Nayar’ in his book “Employees first and customers second” as the employees are the ones who can help in managing your customers. Forward thinking organizations have observed this fact and have been successfully following the “Employee First” culture. These organization’s professional career development already focuses on the skill set, knowledge and the IQ that’s required to lead others.

3. Time Capitalization

We have heard and believed the fact that “Time cannot be bought”. However, its not the case in the segment of human resources as if you are hiring some employees and paying them to work for you simply means that you are buying their time. In that case, one employee is paid for his or her 9 hours of work considering 7 hours of total efficiency and if you have 4 employees you captured the entire 24 hours cycle of productivity. Time needs to be capitalized in this manner in order to make use of resources efficiently.

4. Attaining parity in terms of work and personal life.

There is no surprise that today most of us feel losing something on a daily basis, no matter how much time and efforts we give to achieve everything we have planned to accomplish in the cycle of 24 hours and making our entire day productive at the end we are left with something extendable for the next day upcoming and the same continues forever and after. This continues till the time we realize that actually we are just trying act like the “Donkey trying to catch the carrot tied on his head” Hiring people means hiring huge collaboration of mental stress, anxiety, depression, and mood swings along with their skills. Hence, these things should be focused on in order to get the best out of an employee.

5. Holistic Growth

Human Resource is not only a management thinker but it is even more fundamentally a business doer and a leader. The era of 2020 is an entirely revolutionary time frame where there is no doubt about Digital transformation has attained radical improvement, along with small businesses and large enterprises looking alike to gain from digital HR tools. The entire generation

will be working with completely opposite means and ways which were been followed traditionally, understanding how your employees will be mentally prepared to adapt aspects like Personalized Marketing, Predictive Inventory Ordering, Real-time data monitoring and protocols, evaluating recruiting methods, identifying gaps in skill set and assessing the demand and supply of talent will lead to an sustainable growth of the organization.

Linkage between the employees and the employer is the key to succeed in Business.

INTRODUCTION

Today, Human resources does not comprises only as a profession infact its more of people management, trust between employee and the employer of the company along with the physiological aspects retention and getting the best maximum output from the people [1].The business standards and conditions are highly different from ever before, today the most predicted trends have become non-existent which is supported by the theories of evolution of organizational practises which was first put forth by Frederic Winslow Taylor in 20th century, whose approach assumed that employees are motivated largely by money and the importance of giving monetary incentives for efficient workers, Later came The Bureaucratic Approach by Max Weber which focused on the organizational structure, division of labours, implementation of law and orders, etc. Lastly came the Hawthorne Studies which brought out a number of findings relevant to understanding human behaviour at work, this approach emphasized more on human-centric approach to work.

The world of business has seen three empowered revolutions.The Industrial Revolution, the Information Revolution and now we'hv in the revolution which is also known as the social revolution.[2] In Industrial Revolution people took a job for survival, to fulfill their basic necessities of food, clothing and shelter so they went in and worked in a work place and they didn't leave that workplace even if their boss was abusive, people would not leave their job. Which was the era of wherein we used believe that "Boss is always right" due to very obvious reasons. Then came in the Information Revolution where all these IT companies came in and these brands started building up, and then the workforceno more came to work for survival because their parents already took care of their survival. [4] This workforce went to work for standard of

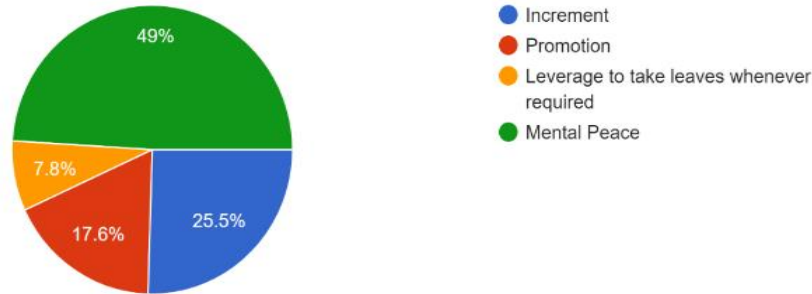
living basically to get a good enough salary to pay the house and car installments, children's education loan, now in this generation loyalty reduced which never existed in the first place, because in Industrial Revolution, this generation used to switch if they got better quality of workplace, a better pay then people would jump a job. Then came the third revolution after 2008 recession, Information revolution died. Nowadays information is available for free we can access coding on YouTube it has no longer remained a hidden knowledge. So, now we live in a digital revolution hereby everything is social which means today's workforce don't care about survival as their grandparents already took good care of that, they don't care about standards as their parents already took care of that like today even a labour does not care about his standard of living anymore [5] because even the labor has tata sky or dish tv in their house. So, if you say I'll cut your pay or I'll bind you with a contract they will say "Thank you so much I'm finding another job". Next we have "The Era of Analytics" wherein, the elements like implementation of Organizational Behavior and employee value proposition comes into the picture.

This is a lesson to be learned for Human Resource practises while moving forward as these are considered to be an vital part of the organization as this department has the potential to be the moral compass of the organization, it promotes the policies and practices that are sustainable for humans and the environment. But the fact is these goals aren't easy to achieve, HR can facilitate the coordination between managers and the employees, as well as contributes to the organizational cultural change, as has been amply demonstrated in the past 20 years of research. Every study has certain footprints left and the dimensions of company policies have changed too in order to match the pace of revolution era. Currently HR heads must learn everything about the industry, their competitors, business operations and they also need to analyse the personality, attitude and perceptions the employees have towards the business growth and how motivated are they in order to achieve organizational goals so that there is peace, harmony and continues growth in the organization.

DATA INTERPRETATION

What is Job Satisfaction for you?

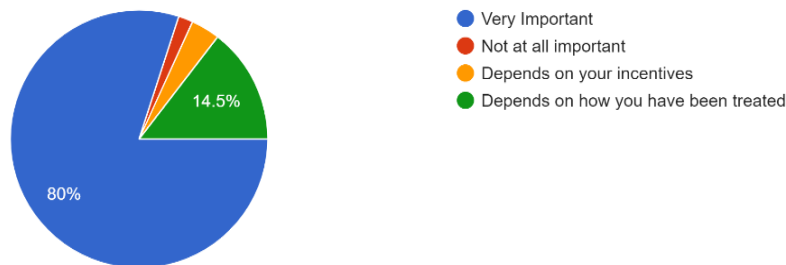
51 responses



The above pie chart shows that 49% of the employees feel that their mental peace is equal to their job satisfaction for 25.5% its about their incremental benefits, for 17.6% its about when they get promotion and only 7.9% of the people find their “Job Satisfaction” equal to the leverages provided to them. This shows the relationship between the stability of an employee into an organization and an employee’s mental peace.

As an employee of an organization how far the customers are important to you ?

55 responses

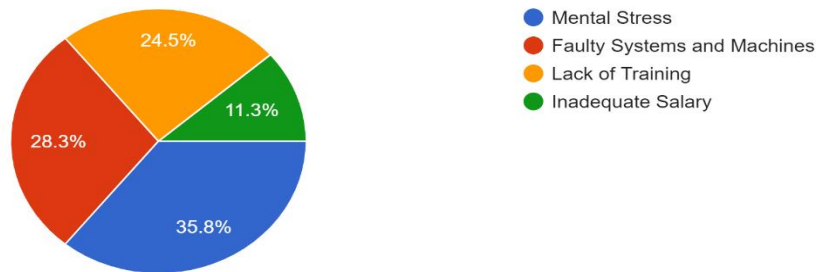


The above figure depicts that customers stands to be the most important factor for the respondents which is about 80% then 14.5% of the respondents feels that the importance given to the customers by them depends on the treatment they get in the organization whereas, the rest 5.5% of them rarely bother about the customer unless its about their incentives. This shows that mostly employees are happy to serve their customers in the best possible ways, which emphasis

on the fact that “if you keep your employees happy, they will take care of your customers and will result into profit maximization”

What affects your productivity the most?

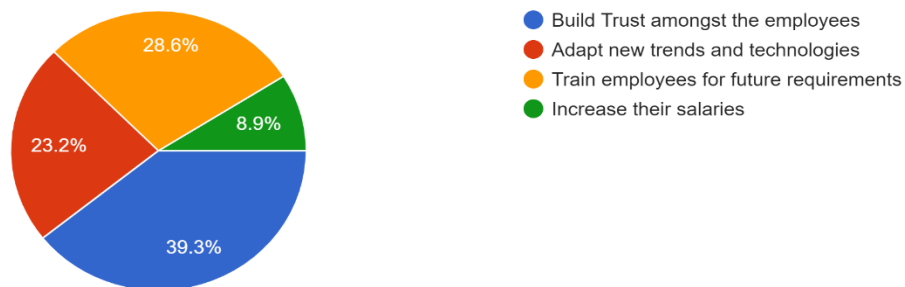
53 responses



The above figure depicts that Mental stress stands to be the most impacting factor when it comes to delivering productivity which is about 35.8% then 28.3% of the respondents says Faulty system and machines lowers down their productivity scale whereas, 24.5% of them states that due lack of training they lack to match the productivity standards required and 11.3% finds salary to be an impacting factor for their less productivity delivered.

What can an organization do for sustainable growth?

56 responses



The above pie chart shows that 39.3% of the employees feel that they can grow sustainably by building trust amongst the employees, for 28.6% sustainability in business can be achieved by adapting new trends and technologies. Whereas, for 23.2% training employees for future requirements can attain in sustainable business growth and only 8.9% of the people feel that increase in salary can add on to sustainable growth of the business.

CONCLUSION

This study shows that Human Resource Development should not only be concerned with training the employees for their job roles in fact it should be more of focussing on individuals goals, stress management and work life balance in order to achieve success at global level. These things should be taken care of when it comes to Human resource management and development. This research emphasis on the unsaid fact employees are the crucial elements of business which helps an organization to sustain with the optimum resources utilization and be prepared for the worst as these aspects becomes an essential part to be learned for Human Resource practices in order to sustain in the VUCA World. Business growth is the matter of mutual prosperity of an employee and the employer both because

“Today’s workforce wants to work however, hates to be forced”.

RESEARCH METHODS

This paper is based on primary data from the employees and the companies also secondary data referring to various sources such as Research Papers websites and newspapers.

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5. Primary data <https://forms.gle/xJBDBtzLxUaXm1r27>[Fig 1,2,3,4]
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Tracing the rise of a 'Mindful' Consumer : Legal aspects of Consumer Protection in India

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ABSTRACT

Consumer protection laws in India play a crucial role in safeguarding the rights and interests of consumers across the country. Enacted to address the challenges posed by unfair trade practices and ensure the welfare of consumers, these laws have had a significant impact on the business-consumer relationship. India boasts a well-established legal framework for consumer protection, with key legislation like the Consumer Protection Act, 2019, which replaced the outdated Consumer Protection Act, 1986. This new Act modernizes consumer rights and remedies, keeping pace with the changing market dynamics and technological advancements. This paper traces the consumer protection movement around the world and also traces the status of Consumer Protection Laws of India along with a few seminal cases from the Indian Legal field.

Key Words: *Consumer, Consumer Protection, Trade Practices, Compensation*

INTRODUCTION

The history of consumer protection laws stretches back over centuries, evolving in response to changing economic, social, and technological circumstances. The concept of consumer protection can be traced back to ancient civilizations like Babylon and ancient Rome, where laws and regulations were enacted to prevent fraudulent practices in marketplaces and ensure fairness in trade. During the Middle Ages and Renaissance, guilds and trade associations in Europe played a role in regulating the quality and pricing of goods. They established standards and rules to protect consumers from substandard products. The Industrial Revolution led to significant changes in manufacturing and commerce. As mass production increased, concerns about product quality, safety, and deceptive practices grew. In the mid-19th century, countries like the United Kingdom began to enact laws addressing specific issues, such as adulteration of food and the sale of counterfeit goods.

The late 19th and early 20th centuries saw the emergence of consumer protection movements, often led by social reformers, journalists, and advocacy groups. These movements aimed to raise awareness about unsafe products, misleading advertisements, and unethical business practices. The United States enacted the Pure Food and Drug Act in 1906, which aimed to regulate the quality and labeling of food and pharmaceuticals.

The mid-20th century saw a significant expansion of consumer protection laws in various countries. The United Nations adopted guidelines for consumer protection in 1985, outlining principles for fair business practices, product safety, and information disclosure. The latter half of the 20th century witnessed a surge in consumer rights advocacy, leading to the establishment of dedicated consumer protection agencies and the enactment of comprehensive consumer protection laws in many countries. The European Union introduced consumer protection directives to harmonize regulations across member states and ensure a high level of consumer protection. In the United States, landmark legislation like the Consumer Product Safety Act (1972) and the Federal Trade Commission Act (1914) were established or amended to enhance consumer protection.

The rise of the internet and e-commerce presented new challenges for consumer protection. Laws were adapted to address online fraud, data privacy, and cross-border disputes in the digital marketplace. Many countries have been updating their consumer protection laws to address modern challenges, including the regulation of online platforms, emerging technologies, and the sharing economy. Efforts to strengthen consumer education, awareness, and access to remedies have become integral to modern consumer protection strategies.

The English legal system was disorganized and was based on the laws and customs of villages but all this changed after the conquest of The French ,William the Conqueror of the Norman's conquest of England. The language that was spoken by the aristocracy and the ruling elite changed to French and so did the language of the courts. The eminent judges of the time were tasked with assimilating the local laws and they were delegated to local visits to villages. As a result, the judges noted and applied the principles they believed were most unprejudiced in their findings.

After this there were various developments in the judicial landscape such as the following cases

1. Ashby v. White (1703): This is the landmark court case in which the principle of *injuria sine damnum* was established, which literally translates to injury (legal injury) without damage.
2. Vaughan v. Taff Vale Railway Company (1858): This case involved a dispute between a locomotive operator and a wood company. The locomotive had caused a fire and huge losses to the wood company. But the court ruled that the locomotive owner was sanctioned by the statutory authority to carry out his operations so he had not broken any laws.
3. Rylands v. Fletcher (1868): The case involved two parties that were owners of a water reservoir and coal mines respectively. The water from the water reservoir had flooded through an unclosed mine of the defendant and flooded the functional coal mine of the plaintiff, which in turn had caused huge property losses. The court ruled that if you bring something risky onto your (like a lot of water) and it escapes and causes damage, you will be held responsible for the damage, even if you didn't do anything wrong or on purpose through negligence.
4. DONOGHUE V STEVENSON (1932)-The case involved a consumer and a manufacturer. The consumer purchased a ginger ale which on further investigation contained the remains of a decomposed snail. Consuming the decomposed snail made the consumer sick. The case was heard in the House of Lords and became a landmark judgment when it came to the law of torts. The verdict by the House of Lords said that the manufacturer owed a duty of care as the manufacturer of the product, and the principles enshrined in the verdict have been applied to numerous issues of negligence.

The law of torts is very vast and is loosely based on the principle of *ubi jus ibi remedium*, which means that where there is a right there is a remedy.

Law of torts remains largely uncodified in India but there have been various attempts to codify it. Examples are the Motor Vehicles Act, Environmental Degradation Act, and Consumer Protection Act. The history of consumer protection laws reflects the ongoing evolution of global trade, technology, and consumer expectations. These laws have evolved from rudimentary safeguards against deceptive practices to comprehensive legal frameworks that encompass product safety, fair competition, and the rights of consumers to accurate information and redress.

LITERATURE REVIEW

Consumer protection laws are a critical facet of modern economies, aiming to ensure fair and transparent transactions between consumers and businesses. This review surveys key themes and

insights from existing literature, providing a comprehensive understanding of the global landscape of consumer protection laws.

Historical Evolution

The historical development of consumer protection laws showcases the influence of societal changes on legal frameworks. Research by Moorhouse (2009) highlights ancient civilizations' attempts to regulate market practices as early instances of consumer protection efforts. These rudimentary regulations laid the groundwork for modern consumer protection laws (p. 72).

Comparative studies have offered valuable insights into the diversity of consumer protection approaches. Porter's (2015) comparative analysis of consumer protection laws across the European Union and the United States underscores the challenges posed by differing legal systems and cultural norms, while also highlighting the potential benefits of harmonization (p. 189).

Globalization and digital commerce have spurred scholarly discussions on the adaptation of consumer protection laws. Smith (2020) explores the complexities of cross-border transactions and jurisdictional issues in the digital era, underscoring the need for international cooperation and standardized regulations to address these challenges (p. 215).

Scholars have emphasized the significance of consumer education in enhancing the effectiveness of consumer protection laws. Johnson and Davis (2018) argue that informed consumers are better equipped to exercise their rights and make informed choices, contributing to a more equitable marketplace (p. 127).

The effectiveness of enforcement mechanisms has been a focal point of research. Baker and Patel (2017) examine the role of regulatory agencies in enforcing consumer protection laws and stress the importance of ensuring their independence, resources, and authority for effective oversight (p. 76).

The emergence of technology introduces new dimensions to consumer protection. Williams et al. (2019) delve into the implications of artificial intelligence for consumer rights, discussing the

potential benefits of AI-driven dispute resolution while addressing concerns related to transparency and accountability (p. 412).

Ethical considerations within consumer protection have been explored extensively. Robinson's (2016) study on corporate social responsibility and consumer protection underscores the role of businesses in promoting fair practices, emphasizing that ethical conduct can enhance consumer trust and loyalty (p. 55).

Empirical research has evaluated the effectiveness of consumer protection laws. Turner and Anderson (2018) employ a case study approach to assess the impact of product liability laws on manufacturers' quality standards, highlighting how such laws incentivize businesses to prioritize consumer safety (p. 302).

The history of consumer protection laws in India has evolved over the years to address the changing needs of consumers and the challenges posed by unfair trade practices. Here is a chronological overview of the key milestones in the development of consumer protection laws in India:

1960s-1970s: Early Initiatives

The earliest attempts at consumer protection in India can be traced back to the 1960s and 1970s when the government recognized the need to protect consumers from deceptive practices, adulteration of goods, and unfair trade.

The Monopolies and Restrictive Trade Practices (MRTP) Act of 1969 aimed to prevent monopolistic and restrictive trade practices that adversely affected consumers.

1986: The Consumer Protection Act

A significant turning point occurred in 1986 when the Consumer Protection Act was enacted. This legislation was a comprehensive step towards safeguarding consumer rights and interests.

The Act established a three-tier structure of Consumer Dispute Redressal Commissions at the district, state, and national levels, offering consumers accessible forums to file complaints and seek remedies.

The Act introduced provisions related to misleading advertisements, product liability, and the right to information, strengthening consumer empowerment and protection.

1990s: Strengthening Consumer Rights

During the 1990s, several amendments were made to the Consumer Protection Act to further enhance consumer rights. These amendments aimed to expedite dispute resolution, increase penalties for violations, and streamline procedures.

The Act was amended to address emerging challenges, including the growth of the telecommunications and banking sectors, which necessitated consumer protection in these domains.

2002: Amendment to the Consumer Protection Act

In 2002, further amendments were made to the Consumer Protection Act to address issues such as the establishment of consumer councils at various levels, empowering consumers with more effective tools to voice their concerns.

2019: New Consumer Protection Act

One of the most significant developments in recent times was the enactment of the Consumer Protection Act, 2019, which replaced the 1986 Act. The new Act sought to modernize consumer protection laws to align with changing market dynamics and technological advancements.

The Act introduced provisions related to e-commerce, direct selling, product liability, and the establishment of a Central Consumer Protection Authority (CCPA) to address unfair trade practices more effectively.

It expanded the definition of consumers to include online shoppers and reinforced the concept of product liability, holding manufacturers, service providers, and sellers accountable for defective products.

Present and Future: Ongoing Reforms

As of the present, India continues to refine and enhance its consumer protection laws to address new challenges. The establishment of the CCPA and the integration of digital platforms into the

consumer protection framework demonstrate India's commitment to staying ahead of evolving market trends.

Cases of Consumer Protection

Several seminal cases have shaped the landscape of consumer protection in India by setting important legal precedents and highlighting the significance of consumer rights. Here are some notable cases that have played a pivotal role in defining consumer protection laws in the country:

Vishnu Agencies vs. Commercial Tax Officer (1997): This landmark case marked a turning point in Indian consumer protection jurisprudence. The Supreme Court held that a consumer's right to life and safety takes precedence over the manufacturer's right to carry on business. The ruling established the principle of strict liability, which means that manufacturers can be held liable for damages caused by defective products, even if they were not negligent.

Indian Medical Association vs. VP Shantha (1995): In this case, the Supreme Court expanded the definition of "service" under the Consumer Protection Act to include medical services provided by doctors, hospitals, and clinics. This decision brought healthcare services under the purview of consumer protection laws, enabling patients to seek redressal for medical negligence and deficient services.

Cadila Healthcare Ltd. vs. Cadila Pharmaceuticals Ltd. (2001): This case addressed issues of misleading advertisements and their impact on consumers. The Supreme Court ruled that false and misleading advertisements not only deceive consumers but also infringe on their rights. This case emphasized the importance of accurate and transparent information in advertising.

Lucknow Development Authority vs. M.K. Gupta (1994): In this case, the Supreme Court upheld the principle of vicarious liability, stating that public authorities and government bodies can be held accountable for their actions that cause harm or inconvenience to consumers. This ruling highlighted that consumer protection laws are applicable to both private and public entities.

National Insurance Co. Ltd. vs. Jugal Kishore (2005): This case emphasized the duty of insurers to settle claims promptly and fairly. The Supreme Court held that undue delay in settling claims amounts to deficiency in service and can be challenged under consumer protection laws. This decision underscored the importance of protecting consumers' rights in the insurance sector.

MC Mehta vs. Union of India (1987): While not exclusively a consumer protection case, this landmark litigation led to the "polluter pays" principle, highlighting the responsibility of industries to safeguard public health and the environment. This principle indirectly influences consumer protection by ensuring that goods and services do not harm consumers or the environment.

These seminal cases have significantly contributed to the evolution and interpretation of consumer protection laws in India. They have established crucial legal principles, expanded the scope of consumer rights, and reinforced the importance of transparency, accountability, and fairness in business transactions and service delivery.

Road ahead for Indian Consumers

With the growth of information technology there is new dimension to the consumer protection movement. The present consumers are aware, alert and informed. The laws must be evolved further so that the consumer's rightful aspirations are achieved and no seller purposefully or inadvertently is able to null their privileges.

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A study of awareness about financial literacy among working people in Mumbai (SUBURBAN).

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ABSTRACT

Financial literacy is essential for individuals to manage their personal finances effectively in today's complex financial landscape. It includes understanding topics like budgeting, saving, investing, borrowing, and debt management. A financially literate individual can make informed decisions, assess risks, and achieve their financial goals. The lack of financial literacy can lead to negative consequences, such as increased debt, financial stress, and inadequate retirement savings. Additionally, vulnerable groups like low-income individuals, women, and minorities tend to have lower financial literacy levels, necessitating targeted education programs. To address these issues, access to transparent and easily understandable financial products and services is crucial. Ultimately, promoting financial literacy is vital for individuals' financial well-being and the overall health of the economy.

Keywords

Financial literacy, Investment, budgeting, borrowing, managing debt

INTRODUCTION

Individuals, households, and communities all benefit from financial literacy for a variety of reasons. It entails comprehending financial items, maximizing resource utilization, and fostering economic well-being. Individuals with financial literacy may make informed judgments about money management, investments, and debt, ensuring financial stability and long-term security. It also contributes to the building of strong communities by assisting local businesses and engaging in community development activities. Financial literacy reduces financial stress and improves general well-being, favorably impacting social and economic consequences. Improving citizens' financial

conditions is critical in emerging economies for higher economic growth rates. Personal bankruptcy, health concerns, early retirement, job losses, debt stress, and failure to fulfill savings targets can all result from a lack of financial literacy.

LITERATURE REVIEW

(gala, 2022): Financial literacy is essential for effective resource management, but MMRDA young struggle with practical issues, underlining the need for government and educational institutions to promote savings habits and financial management awareness.

(Subrahmanyam, 2021): Financial literacy relates to financial knowledge, skills, and behaviors. Gender, education, income, and age are all characteristics that influence investment decisions among Telangana workers, according to research.

(Jain, 2020): This study investigates financial literacy levels in Mumbai and evaluates financial information sources. The findings demonstrate that not everyone has adequate financial knowledge, and men have more financial understanding. More research is needed to make financial knowledge more accessible.

(WARDER, 2018): The following topics are dealt with human factors; social networking (online); sustainable development; social aspects of automation; data privacy; ethical aspects; distributed power generation; government data processing; educational institutions; innovation management.

(Tamhankar, 2017): This study investigates financial literacy among urban Indian individuals, demonstrating a gender gap and recommending future research to close it. It analyzes variables such as age, income, marital status, and household size, emphasizing the significance of financial decision-making in India's economic progress.

(Agarwalla, 2013): The study looks into the socio-demographic aspects that influence financial literacy among urban youth, and it discovers that joint-family and consultative decision-making procedures are key influencers.

Research Methodology

Research Gap

To make wise financial decisions and to comprehend the risks and rewards of financial products like loans, investments, and insurance, one must be financially literate. It supports ways for managing personal finances, setting budgets, saving money, and paying off debt, which promotes wealth creation and long-term investing understanding. Financial knowledge

also enhances overall financial wellbeing by defending against fraud and identity theft. Financial decision-making with confidence lowers stress and fosters stability. In conclusion, financial literacy enables people to make wise decisions, manage their money, accumulate wealth, and protect themselves against fraud, resulting in a stable and promising financial future.

Objective

The objectives of this study are as follows:

- To analyze the level of financial literacy among working people in Mumbai
- To know the most preferred investment instrument.
- To suggest measures to increase financial literacy among working people

Hypothesis

(H0): There is no significant difference in the level of financial literacy awareness among working people in Mumbai (Malad & Kandivali).

(H1): There is a significant difference in the level of financial literacy awareness among working people in Mumbai (Malad & Kandivali).

Variables

The independent variable is the "working status" of the participants. The dependent variable is "financial literacy awareness."

Sample Study

The study employed a cross-sectional design, utilizing a Google Form questionnaire to collect data from 64 participants from Mumbai suburban especially from Malad and Kandivali region. The questionnaire was structured to obtain information about investor awareness, preferred investment types, investment risk, and awareness about personal expenses, investment choices, and financial literacy. The data was analyzed using descriptive statistics

to gain insights into financial literacy.

Primary Data: The study is based on primary information collected through a structured questionnaire that was created.

Secondary Data: The information was collected from research papers, articles, magazines.

Scope of study

- **Assessing the level of financial literacy:** This involves measuring the level of financial literacy among individuals using various measures, such as surveys, questionnaires, or quizzes.
- **Identifying the factors that influence financial literacy:** This involves exploring the factors that affect financial literacy, including demographic factors such as age, gender, education, income, and cultural background.
- **Understanding financial behaviors:** This includes examining how individuals make financial decisions, such as saving, investing, borrowing, and spending

Data Analysis and Interpretation

Sampling and collection of data

The researchers have circulated and collected information in total 64 responses. For this study we have used convenience sampling as this study is only limited to Mumbai Suburban especially Malad & Kandivali.

Age groups	Response
18-26	50
27-35	14
35-43	0
43 & above	0

- Majority of respondents are graduate 60.9% (64 respondents)

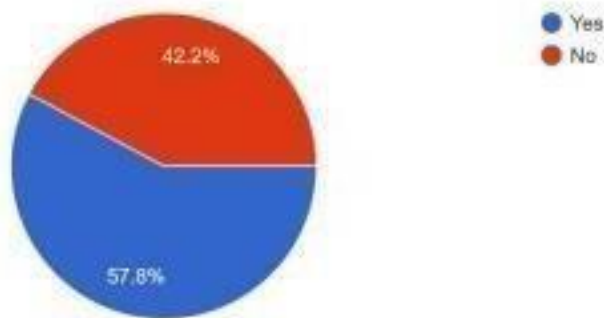
Educational background	Response
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School level	04
Graduate	39
Post graduate	19
Professional	02
Income per month	Response
Below 30000	20
30001-40000	10
40001-50000	23
Above 50000	11

- The maximum number of respondent has income between Rs.50,001 & above. This means respondents fall into higher middle-class category.

Options	Response
Yes	37
No	27

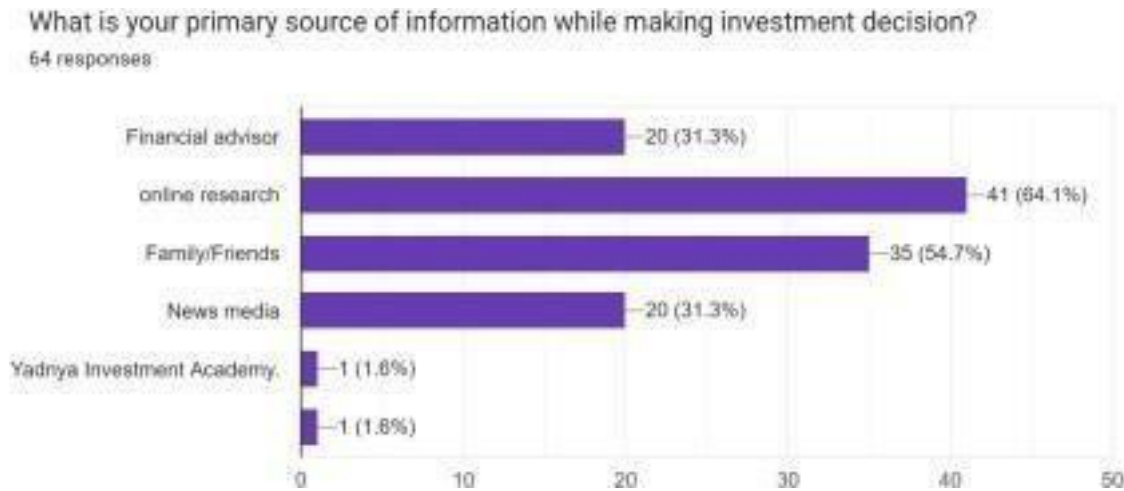
Have you ever invested in stock, bonds, mutual fund, or other financial instruments?
64 responses



- Majority of respondents invested in stock, bond, mutual fund or financial instrument

i.e. 57.8%. But then also the percentage is not very high, that indicates the financial literacy awareness is important.

Options	Responses
Financial advisor	20
Online Research	41
Family/ Friends	35
News Media	20
Others	2

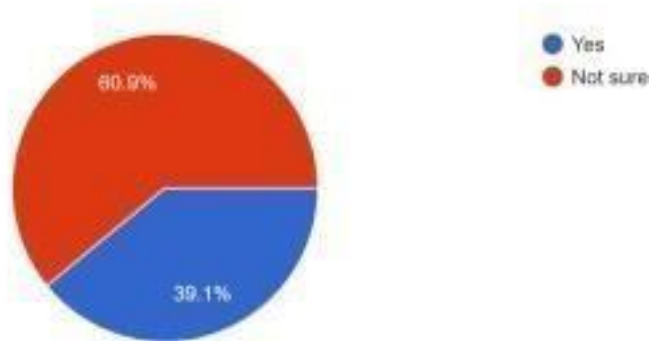


- Majority of respondents uses online research while making investment decision i.e., 64.1%. It indicates that people lack knowledge about other sources.

Options	Responses
Yes	25
Not sure	39

Do you understand tax calculation in your tax return?

64 responses

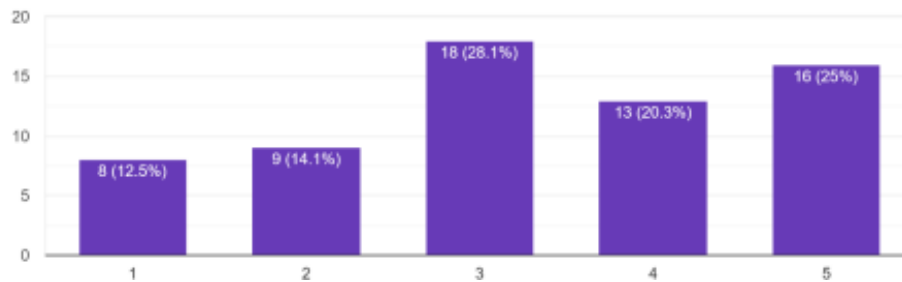


- Majority of respondents (60.9%) do not understand tax calculations. It means they don't have knowledge about tax and it indicates absence of personal financial literacy.

Options	Responses
Not confident at all	8
Not confident	9
Neutral	18
Confident	13
Very confident	16

How confident are you in managing your personal finances?

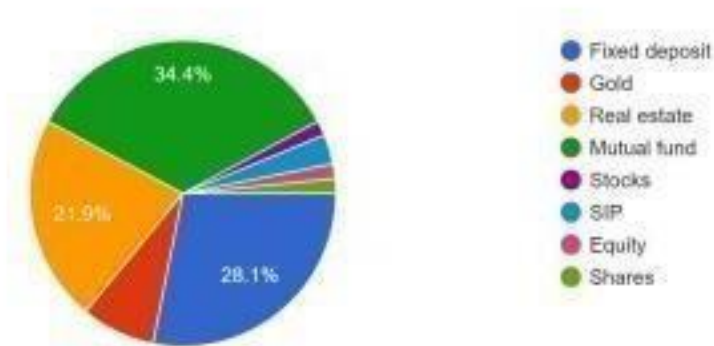
64 responses



- Majority of respondents (28.1%) selected neutral while managing their personal finances. Majority of candidate are not confident about managing their personal finances due to thelack of financial knowledge.

What is your preferred instrument of investment?

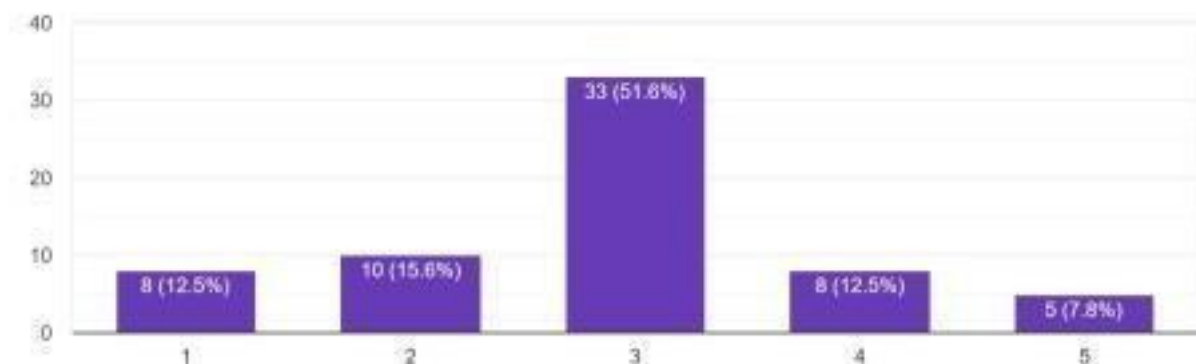
64 responses



- Majority of respondents 34.4% selected mutual fund as their preferred instrument of investment. It may be due to the lack of information about the other instruments of investment.

What is your risk appetite while investing?

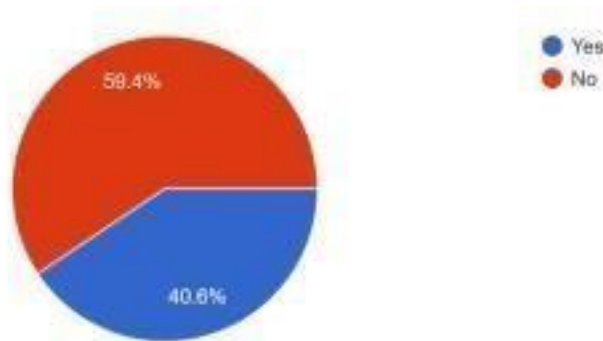
64 responses



- Majority of respondents have medium risk appetite while investing i.e., 56.6%. when you lack knowledge about market fluctuation you do not tend to take risk which why financial literacy is important.

Have you ever received training on financial management or personal finance topics?

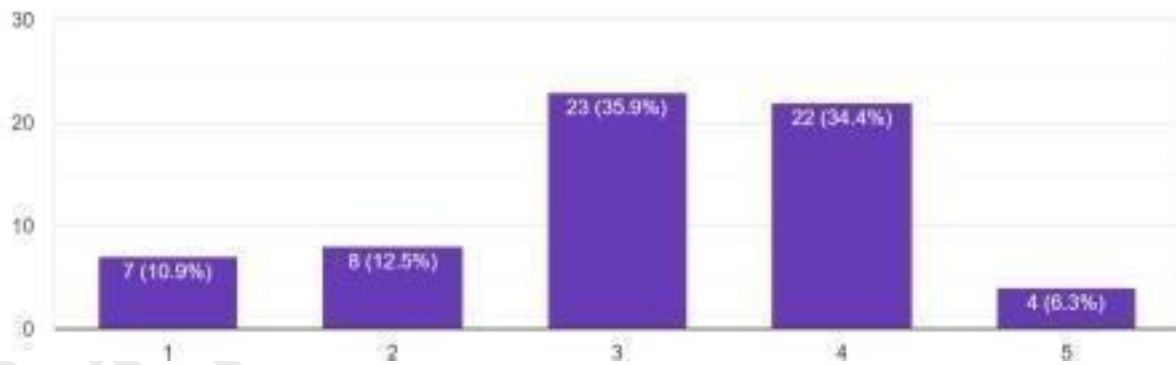
64 responses



- Majority of respondents i.e., 59.4% have not received any training on financial management. In today time financial literacy is very important for an individual to manage his personal expenses and investments.

What according to you is your degree of financial literacy?

64 responses



- Majority of respondents have medium and high degree of financial literacy i.e., 35.9% and 34.4% respectively. Still, we can say there is need of improvement in the degree of financial literacy.

Conclusion

Based on the data, it can be concluded that the majority of respondents are educated and

employed in private companies with higher middle-class income. However, a significant number of respondents do not understand tax calculations indicating a need for financial literacy education.

The data provides an interesting insight into the financial awareness of the respondents. Firstly, it was noted that the majority of respondents were graduates and private company employees. This suggests that the sample group may have a relatively stable income and financial standing. The respondents' income range also suggests that they fall into the higher middle-class category.

However, the data also suggests that there are some areas where the respondents lack financial awareness. For example, a significant proportion of respondents (60.9%) do not understand tax calculations. This could suggest a need for financial education in the area of tax planning and management.

Conservative approach to investing, it could also reflect a lack of awareness of other investment options. In conclusion, the data highlights the need for financial literacy education to improve understanding and decision-making related to tax calculations, and investment options. The popularity of fixed deposits, gold, and mutual funds as investment options indicates a preference for safe and stable investments. The preference for mutual funds may also be due to respondents being more aware of their workings.

Limitation of Study

There are several limitations to the study of financial literacy. Some of them are:

Self-reported measures: Financial literacy is often measured using self-reported measures, such as surveys or questionnaires. However, these measures may be subject to biases or errors, as individuals may overestimate their financial knowledge or may not be aware of their lack of knowledge.

Limited scope: Financial literacy studies may focus on specific aspects of financial literacy, such as knowledge of investment options or debt management, and may not capture a comprehensive picture of an individual's financial literacy.

Cultural and contextual differences: Financial literacy may be influenced by cultural and contextual factors, such as the level of financial development, social norms, and educational systems, which may vary across different countries and regions.

Sample bias: Financial literacy studies may suffer from sample bias, as the individuals who

participate in the study may not be representative of the general population, leading to generalizability issues.

Suggestions

Financial literacy education: The fact that a significant number of respondents do not understand tax calculations and the concept of inflation suggests that there is a need for financial literacy education. This education can be provided through workshops, seminars, or online resources to help individuals understand basic financial concepts.

Investment education: The data suggests that there is a need for investment education as well. Most respondents prefer fixed deposits, gold, and mutual funds, as investment instruments, but a significant proportion of respondents is neutral about their views or do not prefer certain investment instruments. Investment education can help individuals make informed investment decisions based on their risk appetite and financial goals.

Awareness about mutual funds: The data shows that only a small percentage of respondents highly prefer mutual fund as an investment instrument. This may be due to a lack of awareness about the potential benefits of investing in another instrument. Educating individuals about the advantages of investing in other instruments, such as debt and equity and bonds, may encourage more people to consider this option.

Understanding of risk appetite: Although most respondents stated that they have an understanding of risk appetite, a significant percentage of respondents do not understand this concept. It is important to raise awareness about the importance of investment pattern and the risk associated with them and to educate individuals about the same.

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ACCELERATION OF E-COMMERCE SECTOR IN INDIA

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ABSTRACT

E-commerce or electronic commerce generally refers to practicing business online and electronically. E-commerce deals with business activities like buying and selling of goods and services with the help of internet and computer networks. Factors like widespread adoption of computers, smartphones, internet penetration, rising disposable income, etc leads to increase in demand of e-commerce. [5] It gives an equal opportunity to each and every brand present in the market to showcase their products on the same platform. This creates perfect competition in the market that is beneficial for consumers as they always get better product due to competitive advantage. Products can be compared on the basis of quality, quantity and cost which initiates consumers' involvement in purchasing activity. Products on e-commerce websites are more informative about the product than traditional market and hence it generates interest in viewers of the product which ends up desiring them to purchase it. This increase in purchasing rate of consumers also boosts the country's economy. Based on past reports GDP (Gross Domestic Product) was estimated to be contributing approximately 1% of India's GDP. The rise seen in the recent time in digital literacy which is leading to the inflow of investment in E-commerce firms, making the market levelling for the newcomers to set up their base, while also churning out new and innovative patterns to disrupt old functioning. Indian government is very well aware about the positive results of e-commerce and hence government is promoting it more than traditional market. Government encourages many small businesses to setup their e-shops by providing loans, subsidies, etc. as e-commerce is a pillar of digital India and digitalization. Indian government also initiated few e-commerce activities to step into digitalization and one of the activities was starting online railway ticket reservation, [5] start-up India portal, Bharat Interface for Money (BHIM), etc. E-commerce has drastically changed the perception of business and business practices. Hence, this research is based on understanding the acceleration of e-commerce in India. This research

have adopted a qualitative research approach and provides recapitulation in acceleration of e-commerce in India. Findings of this research further indicates how e-commerce is accelerating rapidly in India and how e-commerce is best platform for the buyers and sellers both.

KEYWORDS

E-commerce, Internet, Competitive Advantage, Economy, IndianContext, Digital India

INTRODUCTION

India being a highly populated country has a huge market which holds a large number of buyers and sellers but were still unaware about e-commerce and were following the traditional market pattern in 1990s. [2] E-commerce was introduced in India in late 90s where majority population wasn't having internet facilities and traditional market was acting as a cyst¹ for several brands to come up. Later around 2005, e-commerce started growing and people were endorsing about the emerging e-commerce platforms like Flipkart, Amazon, Alibabagroup, etc. These platforms gaveThese platforms gave many opportunities to various new and remote businesses to sell their products worldwide. Around 2015, e-commerce now was emerging and most focused market by brands in India. It availed customers to purchase even daily usage products like milk, oil, spices, etc. Hence e-commerce became an huge industry where consumers can view, compare and purchase the best product amongst many options available. This was the main advantage of e-commerce and in the current scenario there are many competitors to offer best products in the market. [6] E-commerce is also the cheapest way to sell the products as it removes various additional costs like middleman and resellers and acts as a direct connection between buyers and sellers. E-commerce is considered as fastest growing platform in Indian economy. By the time, it has become biggest market platform for brands worldwide. This research describes the significance of e-commerce and acceleration of e-commerce sector in India.

Review of Literature

¹Cyst is a type of tumour but here author refers scenario of traditional market making limitations for many emerging brands.

Gupta (2014) in her paper “E-Commerce: Role of e-commerce in today’s business”, presents a comprehensive definition of e-commerce while isolating it from e-business. The paper enlists the different e-commerce models i.e. B2B, B2C, B2G and C2C, narratively analysing the nitty gritty of each.

Rina (2016) also elaborates the different applications of e-commerce in “Challenges and Future Scope of E-commerce in India”, at the same time, defining the degree to which they are operational in the country.

Gunasekaran, Marri, McGaughey, & Nebhwani (2002) give a broad outlook of electronic commerce within organisational systems in “E-commerce and its impact on operations management”, defining it with reference to e-trading and elaborating- how it has permeated every field of business. The paper identifies the revolutionary role played by earlier internet applications like e-mail and electronic data interchange and details the revolutionary changes brought by the internet technologies in different sectors.

Mishra & Kotkar (2015) trace the timeline and development of B2C e-commerce in “A Study on Current Status of E-Commerce in India: A Comparative Analysis of Flipkart and Amazon” “with its inception in the mid-1990s through the advent of matrimonial and job portals. However, due to limited internet accessibility, weak online payment systems and lack of awareness, the progress was very slow.

Methodology

- Source of data – The present study is based on primary data and secondary data.
- Data collection – primary data is collected through Google Forms and secondary data is collected from websites, newspapers, articles and research papers.

Limitations

- Collection of primary data is done through random sampling method which includes 50 respondents.
- Time allocated for the research work was limited.
- The respondents’ data may not be accurate.

Objectives

- To elaborate acceleration in growth of e-commerce.
- Studying benefits and limitations of e-commerce.

- To assess the potentiality of e-commerce sector in India.

Significance

- **Takes less consumer efforts** – Wide range of products are visible by just few clicks via e-commerce websites which can be delivered at the door step, this makes consumers to take less efforts in purchasing products and order it right from home comfortably.
- **Variety of products** – E-commerce is a platform for brands worldwide and has huge number of buyers and sellers and hence it has a large variety of products being sold, this gives an opportunity to consumers to take initiative in choosing the best product.
- **Helps emerging brands** – Being a small scale business, it is difficult to advertise and reach the maximum audience in a market but e-commerce helps in promoting products at low cost and is effective in showcasing products on the platform which helps emerging brands to reach every consumer.
- **Competitive advantage** – As e-commerce is a platform for many enterprises, it holds a high competition amongst brands selling same category products, this leads in products of best quality and price to be offered to the consumers to win the competition which indirectly helps consumers to get better product according to them.
- **Worldwide product sale** – A remote brand faces major problem of selling their product in different location, e-commerce helps remote brands to sell their products anywhere in the world which becomes a strong source of sale as selling in only a specific area might be less profitable.

- **Government support** – Government is recently supporting e-commerce as it indirectly helps in growth of Digital India² and a boost in India's economy. Government supported e-commerce sector by providing loans, subsidies, initiating digitalization awareness campaigns and many more. Recently many government activities were done through e-commerce to acknowledge about the functioning of it by promoting electronic payment modes and electronic shopping.
- **Record of purchasing behavior/ consumer behavior** – As e-commerce is done via internet, it maintains a record of consumer purchasing products which can help many brands to enumerate and analyze about purchasing behavior of consumers which can help them to sell products to a targeted audience group.
- **Cost reduction** – Besides the additional cost of maintenance and high advertising cost, selling products online helps in reducing cost as traditional market includes shops, better showcasing of products in shops, sales person, etc. which takes a lot of money. E-commerce here helps brands to reduce such type of costs. This also indirectly reduces selling price of product.

Drawbacks

- **High advertising cost** – Majority e-commerce sector works on pull strategy to promote their products and advertising them takes a huge cost which can be unaffordable for many emerging brands selling various efficient products.
- **Expensive technological equipment's** – Maintenance of e-shop through the internet needs massive technological equipment's as it involves maintaining server, editing, tracking, A.I. bots, database systems, etc. which are usually expensive, and hence it becomes a challenge for brands and a drawback for e-commerce.

²Digital India refers to a programme initiated by Indian government with the vision of transforming India into a digitally empowered country.

- **Complicated e-commerce policies** – [3] Different e-commerce websites like Amazon, Flipkart, Myntra, etc. have their own specific policies, many a time brands face problems in dealing with the policies due to lack of suitability or some other reasons.
- **Fear of counterfeit** – Frauds are one of the major problems for e-commerce as many cases are been observed in delivering fake products, false representation, false claims, etc. which makes a negative image in consumer's mind, they fear from purchasing products via e-commerce websites to be safe from being counterfeited.
- **Extra cost of packaging and shipping** – e-commerce delivers the products to customers' doorstep and hence it increases the expenses of brands in packaging and shipping it to the allocated location. Whereas traditional market or physical market/shops doesn't need any extra packaging and shipping process to be done and hence many businessmen tend to sell more products on physical shops.
- **Privacy in control** – while purchasing a product via e-commerce websites, they ask personal details, identifications and data tracking permission which is accessed by the e-commerce websites and can be misused anytime. This becomes a cause of concern for consumers as the privacy is in control of website owners.

Effects

- **Effects on consumers** – because of e-commerce, consumers are now taking initiatives to compare various products and to get the best product out of them. Consumers are now getting encouraged to try new and unique products they see on internet, this indirectly changes consumer buying behavior as earlier they used to purchase only in what they were in need but now, consumers are purchasing new and unique products, additional products which are not included in day-to-day use, consumers are more focusing on entertainment and facilities then before, etc. Due to e-commerce, consumers are more satisfied with products and their

willingness to purchase is fulfilled while staying in their comfort zone. Consumers are now making more spending than before.

- **Effects on economy** – as the consumer purchasing behavior is being enhanced by e-commerce, rise in disposable income has been seen in past few years. Now consumers are more focusing on purchasing various products they wish for instead of saving money for future. This creates increased money flow in economy and rise in income for firms which leads to perfect balance in economy. A small but a huge contribution of e-commerce is now making a different space in economic terms. Rise of e-commerce is also leading to rise in economy of India. This can help our country to develop even more faster and become a developed nation with a great economy.

How e-payment boosted India

[1] In the marathon of e-commerce, the mode of payment changed its dimensions. One of the first online payment systems in the country dates back to 1996, where the Industrial Credit and Investment Corporation of India (ICICI) began to offer their clients online banking services in their retail branches. Around 2005, more e-payment modes were further added along net banking like online payments through credit and debit cards & NEFTs. The National Payments Corporation of India (NPCI) started to create a more established payment and settlement infrastructure in the country in 2008 and in 2016 NPCI introduced an online payment mode named Unified Payments Interface (UPI) which was an instant real time inter-bank payment system. UPI was a very progressive payment system of that era and users of UPI were increasing day-by-day. In the current time, UPI is the world's most used online payment mode which boasted³ India as its origin was India. UPI is currently number 1 payment mode and rest of the whole world is praising India for this payment system. Recently Singapore, UAE, Oman, Saudi Arabia, Malaysia, France, BENELUX markets – Belgium, the Netherlands and Luxembourg and Switzerland, among others. India has signed MoUs with 13 countries that want to adopt the UPI interface for digital payments. This e-payment system boosted e-commerce sector with a very

³Here boasted is referred to a proud moment for India as UPI is the best online money transaction mode in the entire world.

bright future. NPCI also launched an application to successful use UPI payments, named as Bharat Interface for Money (BHIM). Later UPI was used widely through various payment applications like GPay, Paytm, PhonePe, Bharatpe, etc.

How it has become an important pillar of digital India

E-commerce has emerged as one of the fastest-growing trade channel in buying and selling of goods. It provides a wider reach and reception across the global market, with minimum investments. It enables sellers to sell to a global audience and also customers to make a global choice. Digital India, a initiative by government to digitalize India and make them understand and operate digital world. E-commerce was one of the important pillar of Digital India as e-commerce activities are done via digital mediums and hereby the object of Digital India meets e-commerce. Wonderfully acceleration in the growth of e-commerce sector in India helped digital India to reach its goals easier.

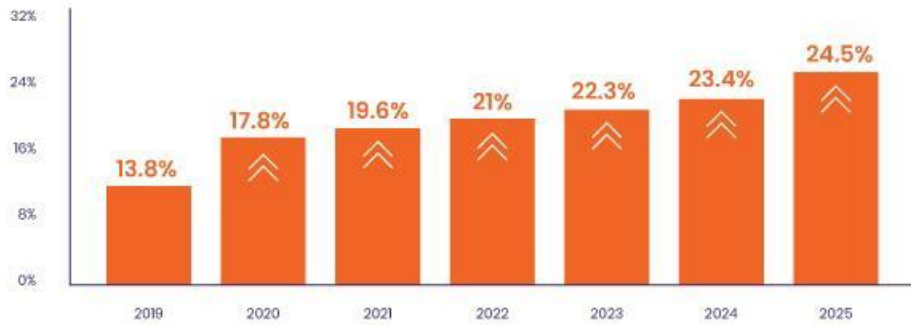
Data Analysis and Interpretation

- **Secondary Data**

Following graphical representations are of secondary sources like websites and articles. Secondary sources are used in this research as we cannot do some research analysis but a research agencies or analyzing companies can. Hence, we are presenting analysis of e-commerce sector in India .

Ecommerce Share of Global Retail Sales (2019-2025)

Actual 2019, 2020. Projected 2021-2025



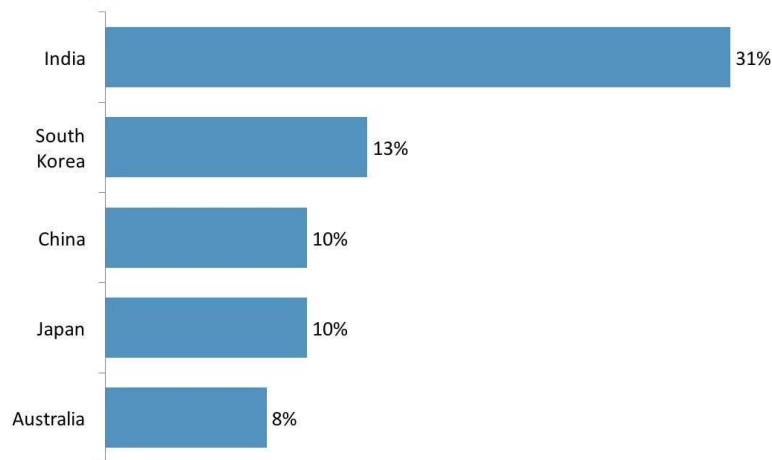
Graph 1.1

(Source :Pentathlon.vc)

Graph 1.1 indicates the rapid growth of share of global retail sales via e-commerce. In 2019 sales were recorded as 14.8% which later increased by 4% in 2020 that was 17.8%. After that, sales rate kept increasing by approximately % each year. According to their findings and calculations, they predicted sales rate of upcoming years. Seeing the constant upgradation in sales rate of e-commerce it clearly gives sign of rapid acceleration of e-commerce sector in future too.

5-Year CAGR For E-Commerce Sales

Asia-Pacific, 2016-2021



Source: Forrester, 2017

BI INTELLIGENCE

Graph 1.2

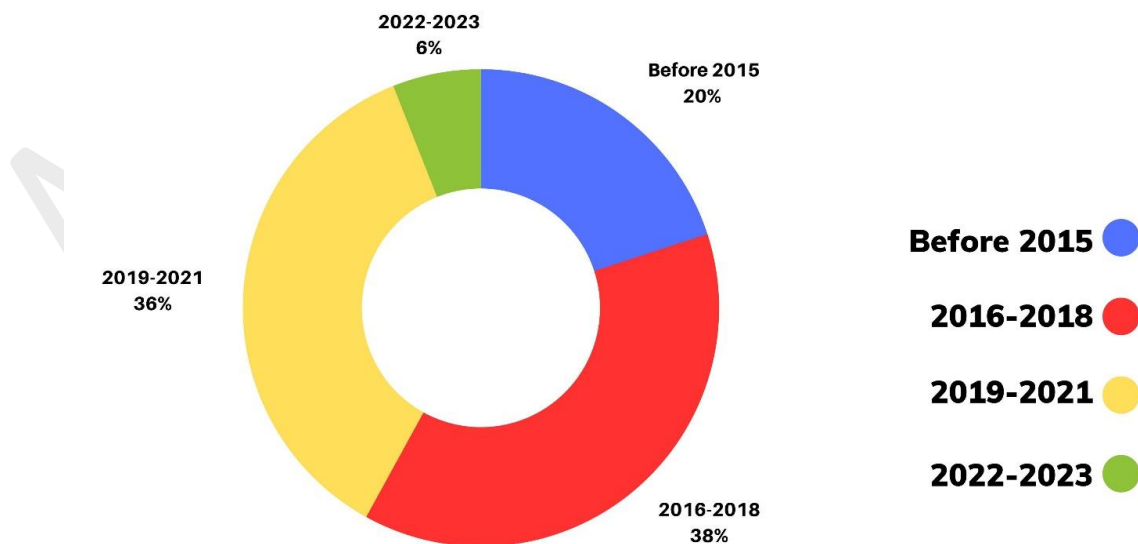
(Source :businessinsider.in)

Graph 1.2 shows the e-commerce sales of topmost ranking countries in past 5 years (2016-2021). In the above graph, worldwide e-commerce sales were been calculated by compound annual growth rate (CAGR) formula. India is ranking at the top by 31% e-commerce sales competing with different well developed countries like China, Japan, South Korea & Australia. It is clearly visible that India is making a wonderful progress worldwide which is now becoming a motivation for Indians to go digital. Seeing through the graphs, we can understand that journey of e-commerce in India has been enhanced the glory of India. Observing this rapid acceleration of e-commerce sector in India, various foreign countries are now interested to collaborate and involve in India's e-commerce sector.

• Primary Data

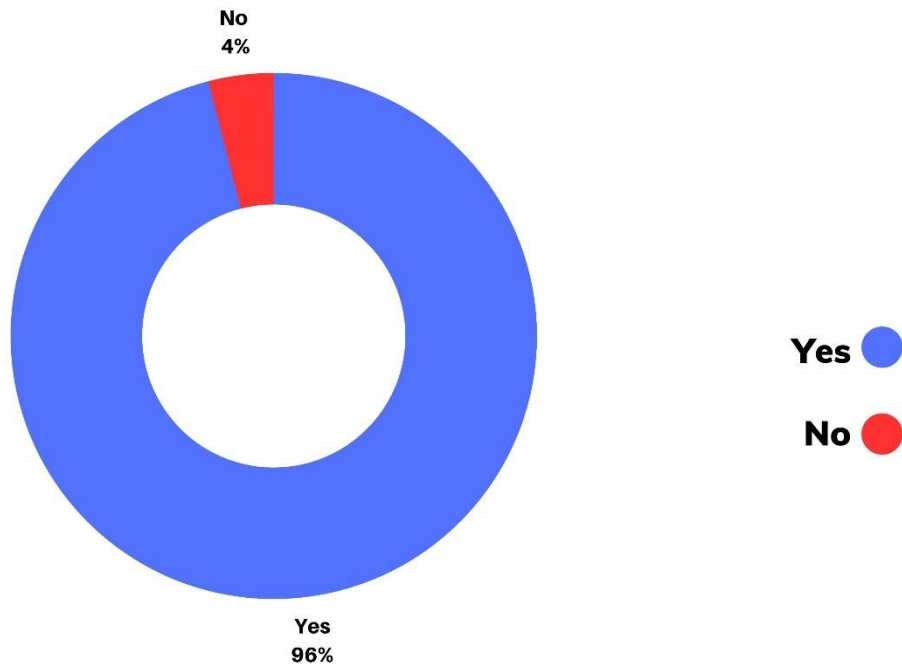
The data and information that we have collected through primary research is as follows:

Our sample size was of 50 respondents and 74% of the people were aged between 18-25 years, 10% aged between 26-35, 6% aged between 36-45 and the rest 10% of them aged 46 and above.



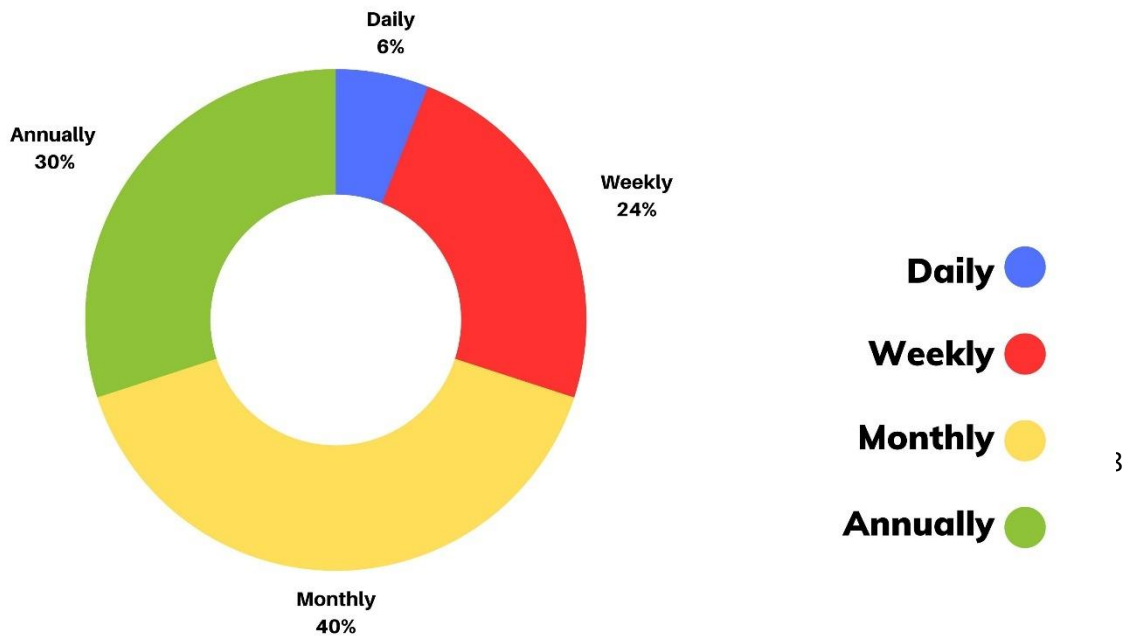
Q1) Around which year did you start purchasing products through e-commerce websites?

20% of the people said before 2015, 38% of the people said 2016-18, and 2019-2021 responded by 36% of them and the rest 6% of the people responded 2022-2023.



Q2) Do you find e-commerce websites user-friendly?

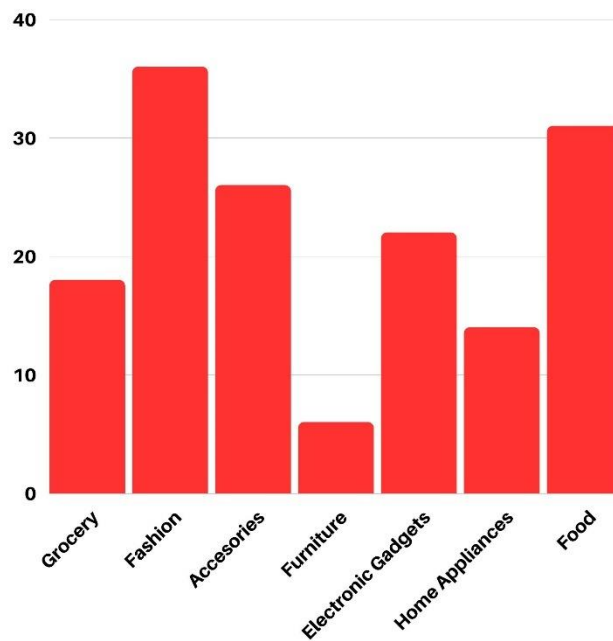
the majority of the respondents i.e. 96% of the people find e-commerce websites user-friendly while the 4% can't stand on it.



Q3) How often do you purchase via e-commerce websites?

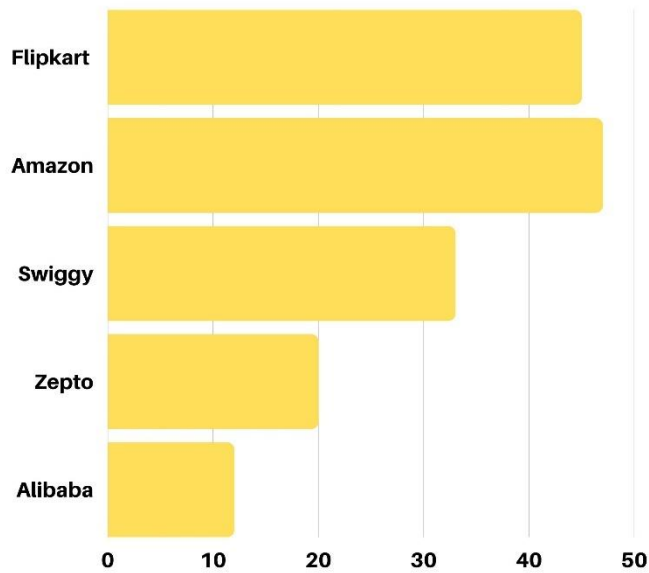
6% of them purchase on a daily basis, 24% of them purchase weekly, 40% monthly and 30% annually.

Q4) What categories you often purchase through e-commerce websites?



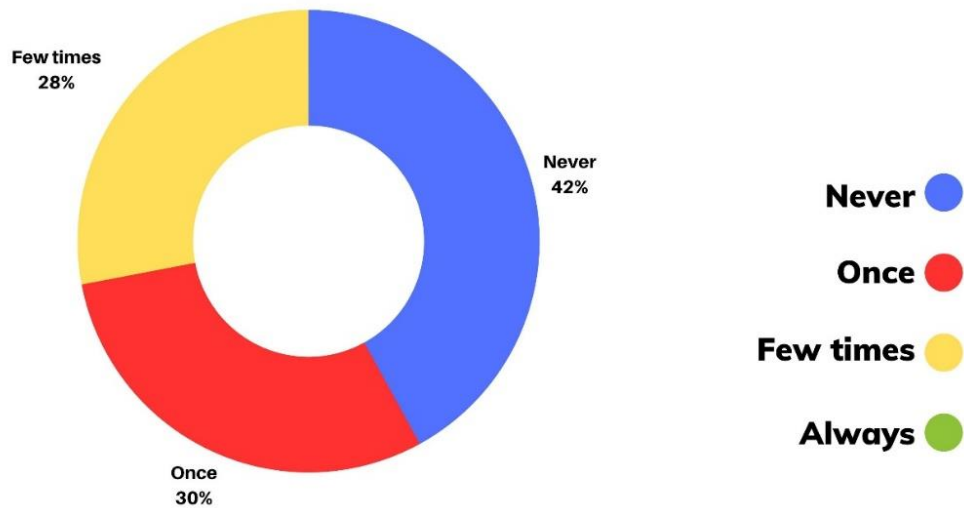
the major responses were for fashion, groceries and food while accessories were responded neutral and home appliances, electronic gadgets and furniture were responded pretty low. Grocery stood with 18 votes, 36 votes for fashion, 26 votes for accessories, 6 votes furniture, 22 votes for electronic gadgets, 14 votes for home appliances and 31 votes for food.

Q5) Which of the following e-commerce websites are you aware of?



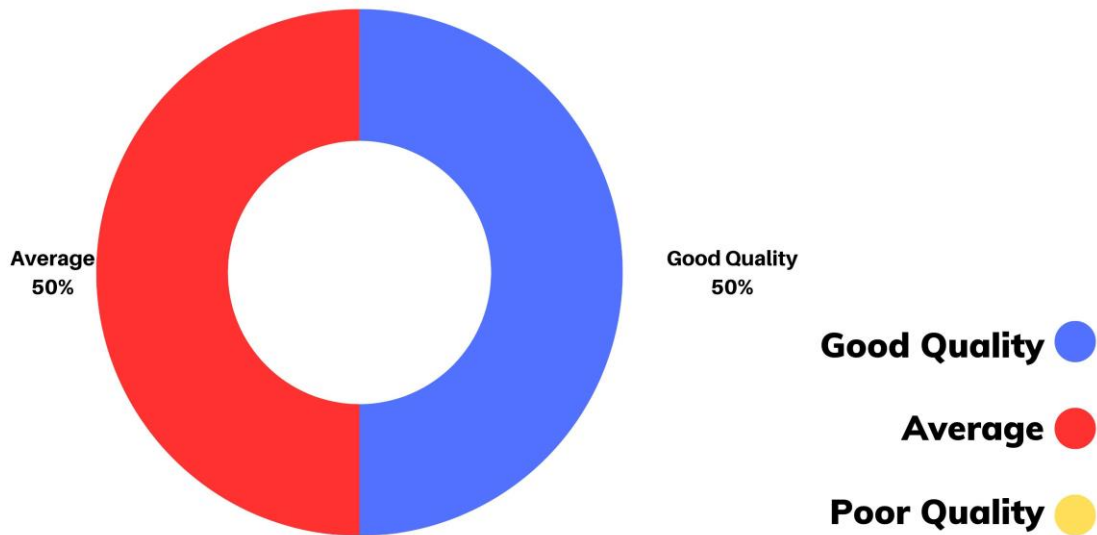
about 90 to 94% of the people are aware of Flipkart and Amazon, 66% of the people know about Swiggy and 40% are aware of Zepto while only 24% of the people know about Alibaba.

Q6) Have you ever experienced receiving fake products from e-commerce websites?



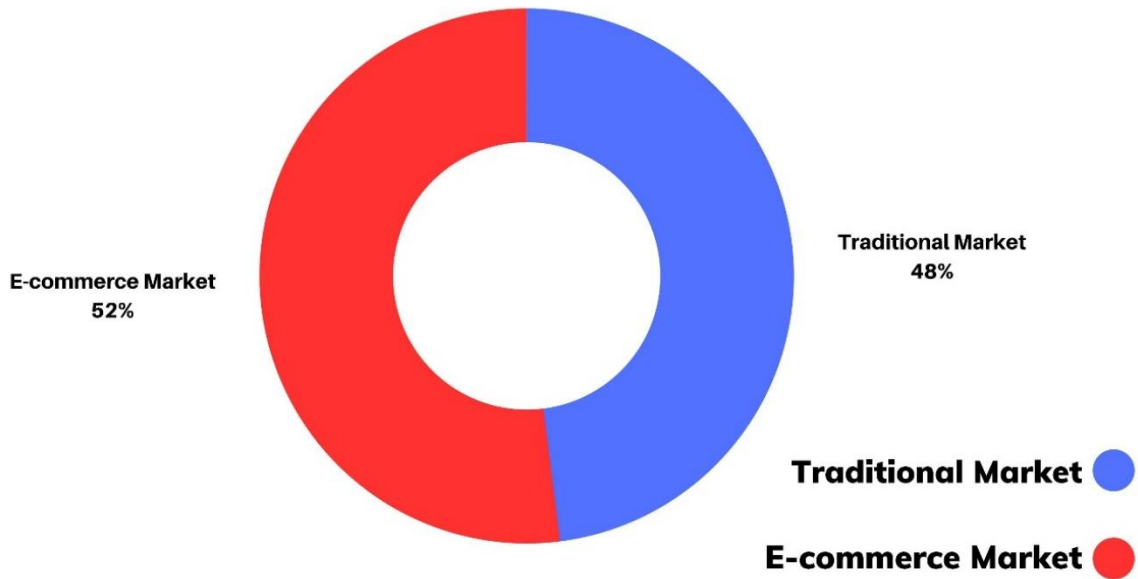
over 42% of the people have never experienced receiving any fake products, 30% of them received them once and, 28% of the people have experienced receiving fake products a few times.

Q7) According to you, rate the quality of the products available on e-commerce platforms



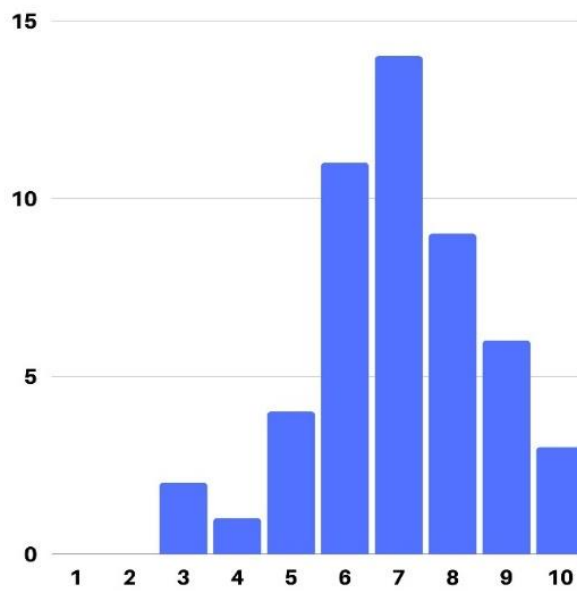
50% of them said the quality was good and the other 50% said it was average and none of them responded for poor quality. No one of the respondents said that quality of the products available on e-commerce platforms were of poor quality, these was a remarkable question as it stated that no respondents had ever experienced a poor quality product from e-commerce websites.

Q8) Which form of the market do you usually find effective?



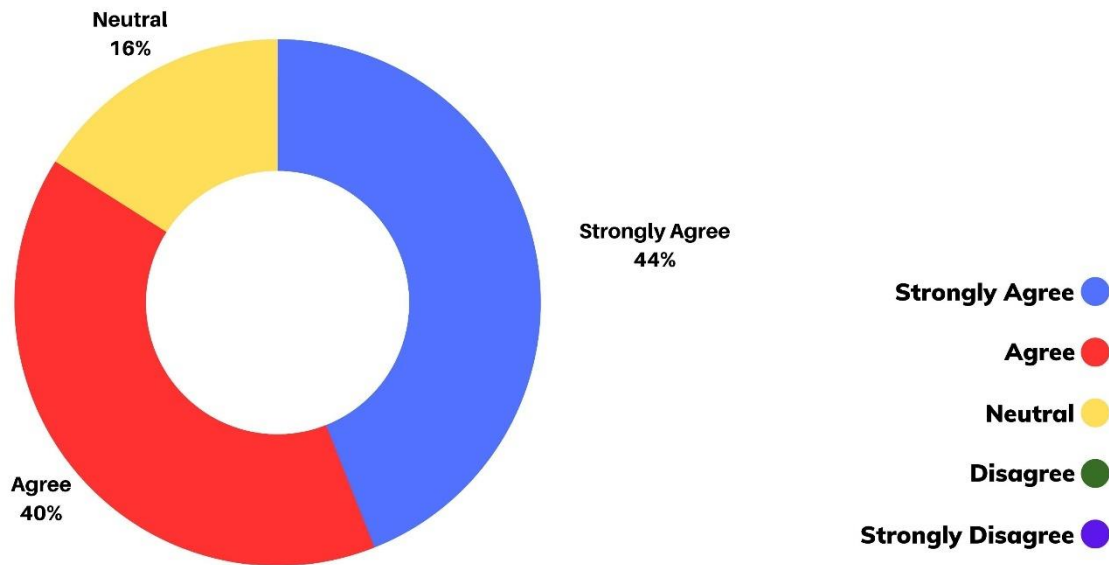
48% of the people still follow the traditional market whereas 52% of the people follow the e-commerce market.

Q9) On the scale of 10, how would you rate your experience with e-commerce websites?



the majority of the people rated 6, 7 and 8 while the rest rated 3, 4, 9 and 10 and nobody rated it 1 or 2.

Q10) It is to be said that e-commerce will be accelerating its growth in future, do you agree or disagree



44% of them strongly agreed, 40% of them agreed, and 16% of them were neutral. There were no votes for disagree and strongly agree.

Our suggestions for the better future of e-commerce

After going through every pros and cons of e-commerce and analyzing its strength and growth via primary and secondary research, we would like to give some suggestions to improve and make e-commerce more sustainable. Government should protect e-commerce trading by improving cyber securities, promoting healthy competition, strict government regulatories are some major improvements to be done. According to us, e-commerce will be accelerating it's speed double then before. E-commerce will not completely end traditional or physical markets but will dominate it. E-commerce will be included in each and every process of firm in traditional market. For households, it will be a basic need as their every activities will be done

through the medium of e-commerce. After 7 qualifying history making years of e-commerce, Till the year 2030, all the facilities would be provided via e-commerce and will be completely shifted to e-commerce activities like complete online banking services, online education or teaching systems, every firms will evolve to work-from-home culture as their base working method, virtual tourism using virtual reality equipments, etc.

Conclusion

E-commerce sector in India is making strides towards becoming and staying at the top all over the world. Through this research we conclude that how and why e-commerce has accelerated it's speed to the peak and now, will always be escalating upwards. Seeing through the journey of e-commerce we can clearly state that e-commerce will never fall down and it's future is secure and glorious. Finds of this research gives a bright signal for the future of Digital India.

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A STUDY ON IRDA REGULATIONS ON THE CURRENT SCENARIO AND EMERGING CHALLENGES IN INSURANCE BROKERAGE

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ABSTRACT

A person who is currently registered with the Authority as a direct broker, a reinsurance broker, or a composite broker, as applicable, is referred to as a "insurance broker" unless otherwise specified. In contrast to insurance agents, who work for the insurance business, brokers are intermediates in the insurance industry who represent their clients. Insurance brokerages have contributed significantly to the sophistication of the business in many markets, and some of the largest multinational brokers are comparable in scale to many insurers in terms of their operational breadth and size. Insurance brokerages are active globally, particularly in the corporate sector of the non-life market. Insurance firms (both public and private banks) have mastered the art of managing the channel conflict that arises between brokers and their agency force, and they typically reward their devoted agents by increasing their commission. The current state of the insurance industry, where insurance brokerage firms play a large role in the non-life segment, is discussed at the beginning of this research study. The second section discusses the main non-life insurance sector routes of distribution as well as IRDA's role in industry regulation. The study finishes with new issues for product innovation and the emergence of a favorable opportunity for both major players and small insurance brokerage companies.

Methodology

Numerous journals, publications, and IRDA websites are cited in the paper's secondary data, which is used for the study's objectives. The purpose of the article is to comprehend the current

state of the non-life insurance market and the function of insurance brokerage as outlined by IRDA laws. The study makes an effort to comprehend the various difficulties that brokers and insurance businesses in India deal with.

KEYWORDS: Insurance Brokerages, Non –Life, Insurance Regulatory & Development Authority of India (IRDA), Product innovation

INTRODUCTION

Life insurance and non-life insurance are the two most common kinds of insurance in India. The term "general insurance" can also be used to describe the non-life insurance sector. Insurance in India is governed by the Insurance Regulatory and Development Authority of India (IRDAI), which regulates both life and non-life policies. In addition to tracking insurance policyholder protections, IRDA is responsible for closely watching the insurance sector in India. For this reason, all insurers must adhere to the IRDAI's rules and regulations. Before LIC entered the market a decade ago, no other Indian insurer had ever provided life coverage. Several government-run companies in India offered non-life insurance, sometimes known as general insurance. These included National Insurance, United India Insurance, Oriental Insurance, and New India Assurance. New private sector enterprises entered the Indian insurance market in 2000, and the industry quickly gained momentum. There are currently enough active insurance companies in India (24 life insurers and 30 non-life insurers) to control the industry.

However, many more insurers are waiting for IRDAI approval before entering the Indian life insurance or non-life insurance markets. By paying a premium, an insurance policy allows the protected party to transfer the expense of their potential risk to another party. This is a type of risk transfer. Essentially, it's a mechanism wherein the safety net provider consents to pay the unfortunate covered parties for prearranged circumstances that result in a shortfall. Insurance serves as a tool to safeguard your wealth and to replace risk on the part of the board. (C. Balamurugan, Dr. T. Thirupathi, 2022)

The products that insurance companies design, approve, and sell to customers are entirely in-house creations. An efficient intermediary who acts as a contact between the vendor and the buyer is necessary to ensure that the items reach the intended recipient and that the recipient is persuaded to buy. Banks, insurance marketing firms, agents, and brokers, among others, can all

make a significant impact in this industry. Some of the largest worldwide brokers are comparable to many insurers in terms of the scope and size of their activities.

Insurance brokerages are largely to blame for the increased complexity of the insurance market. Insurance brokerages mostly serve the corporate sector when operating internationally and focus on the non-life market. Insurance firms (including private banks and public sector units) have developed strategies for resolving the tensions that arise between their broker and agency networks. Typically, companies do this by increasing the commissions paid to their most dedicated sales agents. Brokers not only act as an intermediary between insurance companies and businesses, but also offer a wide variety of value-added services. Pre-emergency planning and evacuation, business continuity planning, employee-benefit solutions, captive management, actuarial services, claims management, risk management, alternative risk transfer mechanisms, staff outsourcing, political and environmental risk advice, etc. are all examples of services that can be provided in addition to organising and placing insurance coverage.

The five different types of insurance brokers are,

- Direct Broker (Life),
- Direct Broker (General),
- Direct Broker (Life & General),
- Reinsurance Broker and
- Composite Broker.

1. Direct Broker

According to the Insurance Regulatory and Development Authority of India (Insurance Brokers) Regulations, 2018, a "Direct Broker" is an insurance broker who is registered with the Authority and who, in exchange for compensation and/or a fee, solicits and arranges insurance business for its clients with insurers in India and/or offers claims consulting, risk management services, or other similar services.

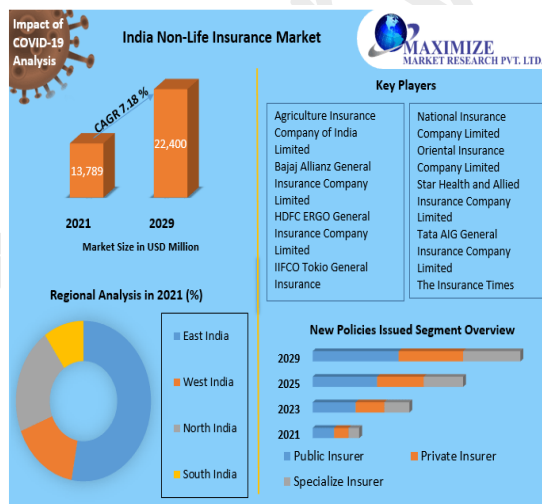
2. Reinsurance Broker

The term "Reinsurance Broker" refers to an Insurance Broker registered with the Authority who, in exchange for compensation and/or a fee, seeks out and arranges re-insurance for its clients with insurers and/or reinsurers located in India and/or abroad; and/or offers claims consulting, risk management services, or other services of a similar nature that are permitted by the Insurance Regulatory and Development Authority of India (Insurance Brokers) Regulations, 2018.

3. Composite Broker

The term "Composite Broker" refers to an Insurance Broker registered with the Authority who, in exchange for compensation and/or fees, seeks out and arranges insurance and/or reinsurance for its clients with insurers and/or reinsurers based in India and/or abroad; and/or offers claims consultancy, risk management services, or other similar services as permitted by the Insurance Regulatory and Development Authority of India (Insurance Brokers) Regulations, 2018.3

CURRENT SCENARIO OF NON-LIFE INSURANCE MARKET



Source: [India Non-Life Insurance Market: Industry Analysis and Forecast 2029 \(maximizemarketresearch.com\)](https://www.maximizemarketresearch.com)

The Indian non-life insurance sector is projected to experience substantial growth, expanding from Rs. 13,789 crores in 2021 to Rs. 22,400 crores by 2029, with a compounded annual growth rate (CAGR) of 7.18%. Several factors are contributing to this growth, including:

1. **Increasing Disposable Incomes:** The rise in disposable incomes among Indian consumers is driving higher spending on insurance products.
2. **Growing Awareness of Insurance:** There is a growing awareness of the importance of insurance for financial security, prompting more individuals and businesses to invest in insurance coverage.
3. **Urbanization:** The ongoing trend of urbanization is fuelling the demand for various insurance offerings, particularly in urban areas.
4. **Mandatory Insurance Products:** Mandatory insurance products such as third-party motor insurance and health insurance are ensuring a steady stream of demand within the market.

The impact of the COVID-19 pandemic on the Indian non-life insurance sector has been mixed. On one hand, the pandemic has led to increased demand for health insurance and related products, as individuals seek protection against financial losses resulting from illness or death. Conversely, there has been a decrease in demand for motor insurance and other products linked to economic activity. Nevertheless, the overall long-term effect of the pandemic is anticipated to be positive, as it has raised awareness of insurance's significance and driven up demand for insurance products.

The Indian non-life insurance market is currently characterized by a dominance of public sector insurers. However, private sector insurers are swiftly gaining market share through innovative product offerings and services to attract customers.

Looking ahead, the Indian non-life insurance sector is poised for significant expansion. Key drivers will continue to be rising disposable incomes, growing awareness of insurance, urbanization, and the prevalence of mandatory insurance products.

INDUSTRY SEGMENTATION

The Indian non-life insurance market is segmented into the following categories:

1. Motor Insurance
2. Health Insurance
3. Property Insurance
4. Liability Insurance
5. Marine Insurance

Motor insurance is the largest segment, claiming over 50% of the market share, followed by health insurance, which accounts for over 20%. Property insurance and liability insurance are also substantial segments, each comprising over 15% of the market share. Marine insurance and other insurance products constitute the remaining market share.

Industry Trends:

Several notable trends are shaping the Indian non-life insurance market:

1. **Surging Demand for Health Insurance:** Health insurance demand is on the rise due to escalating healthcare costs and increased awareness of its importance.
2. **Widening Penetration of Motor Insurance:** The penetration of motor insurance is increasing, driven by mandatory third-party motor insurance and the growing number of vehicles on the road.
3. **Rise of Digital Insurance:** Digital insurance is gaining popularity in India because of its convenience and cost-effectiveness.
4. **INTRODUCTION of New Insurance Products:** New insurance products tailored to meet specific customer needs are frequently being introduced in the market.

Industry Challenges:

Despite its growth potential, the Indian non-life insurance sector faces several challenges:

1. **Low Insurance Penetration:** Insurance penetration remains low due to inadequate awareness and affordability concerns related to insurance premiums.
2. **Fraud:** The industry grapples with significant losses due to fraudulent claims, necessitating improved fraud detection and prevention measures.
3. **Catastrophe Risk:** India's susceptibility to natural disasters like floods, earthquakes, and cyclones poses a significant risk to insurers, necessitating robust risk management strategies.

FUNCTIONS OF A DIRECT BROKER/ A REINSURANCE BROKER/ AND A COMPOSITE BROKER

The following duties must be performed by a DIRECT BROKER:

1. Getting in-depth knowledge of the client's business and risk management philosophy; becoming familiar with the client's operations and underwriting data;
2. Providing Advice on the Right Insurance Coverage and Conditions; And
3. Preserving in-depth knowledge of the relevant insurance markets;
4. Submitting A Quote from an Insurance for A Client's Consideration;
5. Providing The Necessary Underwriting Data That an Insurer Needs in Order to Assess the Risk and Determine the Terms and Conditions for Coverage;
6. Swiftly Carrying Out a Client's Request and Sending Him Written Acknowledgements and Updates;
7. Helping Customers Pay Their Payment in Accordance with Section 64vb of The Insurance Act of 1938 (4 of 1938);
8. Supporting The Claimants' Negotiation;
9. Keeping Accurate Claims Records;
10. Assisting with E-Insurance Account Opening;
11. Aiding with The Issuance of E-Insurance Plans; And
12. Any Additional duties that the Authority may impose.

The following duties must be performed by REINSURANCE BROKER'S

1. Learning The Client's Business Practices and Risk Retention Philosophies;

2. Keeping Accurate Records of the Insurer's Activities for The Benefit of the Reinsurer(S) Or Others;
3. Rendering Recommendations Based On Technical Information About the Reinsurance Covers Accessible in The Global Insurance and Reinsurance Marketplaces;
4. Maintaining A Database of the Reinsurance Markets That Are Accessible, Including Ratings of the Solvency of Specific Reinsurers;
5. Supplying Reinsurance with Risk Management Services;
6. Choosing and advising a reinsurer or collection of reinsurers;
7. Negotiating on the client's behalf with a reinsurer;
8. Helping in the event that their reinsurance arrangements are renegotiated;
9. Swiftly carrying out a client's requests and sending written acknowledgements and updates;
10. Collecting and sending premiums, claims, and reimbursements in the predetermined time frame;
11. Aiding in the settlement and negotiation of claims;
12. Keeping accurate claims records;

Functions of A Composite Broker

A composite broker is required to perform the tasks described in Articles 1 and 2

A composite broker may not attempt to persuade an insurer to also appoint them as appoint them as appoint them as a reinsurance broker for the purpose of arranging reinsurance on the same contract if the customer has chosen the broker to act as a direct insurance broker. The composite broker must put in place adequate processes and controls to protect the client and the insurer. The insurer should only designate the composite broker as a reinsurance broker to arrange reinsurance for a risk for which the composite broker previously worked as a direct broker if the procedure has been thoroughly and transparently carried out.

REVIEW OF LITERATURE

Bashir Jahangir 2013 Since deregulation, the insurance industry has seen profound global transformations. The Indian insurance market has a surprisingly low penetration and density

when compared to markets in other nations. Since the Indian insurance market is still developing, many multinational corporations have been persuaded to enter it. Most of the time, they achieved this by teaming up with Indian businesses. As a result, after liberalisation, the Indian insurance business was met with difficulties stemming from globalization's demands, competition from foreign insurers, and the high cost of underwriting. However, Indian public and commercial insurers have suffered significant underwriting losses due to the emergence of new enterprises. But large underwriting losses ate away at their solvency margins. In this analysis, we use the Insurance Solvency International Ltd. (ISI) predictors to look at the financial stability of India's non-life insurance providers. The study also employs multiple regression analysis to examine the extent to which a variety of parameters are correlated with the solvency of non-life insurers in India. According to the results of the research, the claim ratio and the size of a company have a greater bearing on the company's solvency.

Jansirani, P., coauthors 2019, within the study topic of "Caramel Analysis of Financial Efficiency of Public Sector Non-Life Insurance Companies in India," four parameters were considered in order to compute the financial soundness and liquidity analysis. Although a number of indicators of financial soundness have been discussed earlier, the most reliable and advanced techniques specific to the insurance industry are considered in this research. A lot of thought goes into choosing these financial soundness indicators, though, because the insurance business is distinct, especially when it comes to non-life insurance.

Thirupathi A., Balamurugan C. 2022, among the sectors growing in India is the insurance industry. The unstable nature of the insurance business model and the lack of confidence in doing business with Indian insurance organisations make it imperative to evaluate the operations of insurance businesses, especially those in the general insurance sector. Publicly traded non-life insurance companies' performance was the main focus of the investigation. The study employed the CAMEL Model, which included six variables.

OBJECTIVES OF THE STUDY

1. To study the market scenario of non-life insurance sector in India.

2. To examine the role of brokers as a channel of distribution in order to benefit insurers and policy holders.

ROLE OF BROKERS-CHANNEL OF DISTRIBUTION

Brokers play a crucial role as a channel of distribution in the insurance industry, benefiting both insurers and policyholders in several ways:

Benefits for Insurers:

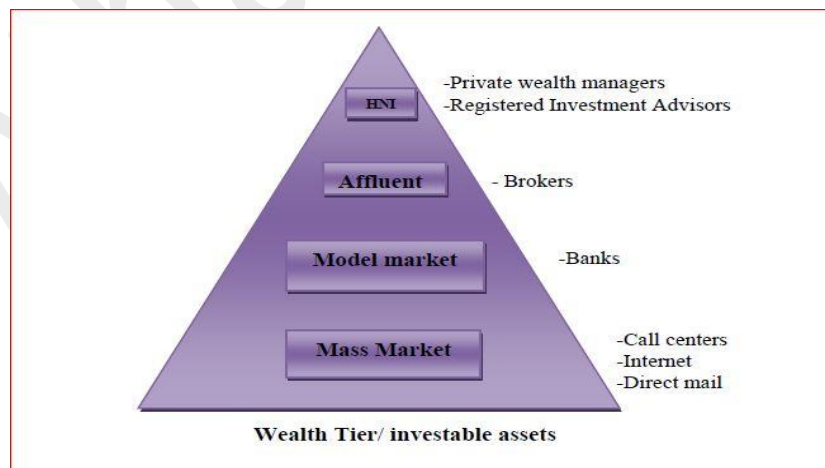
1. **Market Expansion:** Brokers can help insurers reach a wider audience by connecting them with potential policyholders who may not have been reached through direct marketing efforts.
2. **Risk Assessment:** Brokers act as intermediaries who assess the insurance needs of clients. They help insurers better understand the risks associated with potential policyholders, which can lead to more accurate underwriting and pricing.
3. **Professional Expertise:** Insurance brokers are often knowledgeable professionals who can provide valuable insights and advice to insurers. They assist in crafting insurance policies and coverage options that are competitive and attractive to customers.
4. **Administrative Efficiency:** Brokers handle many administrative tasks, such as policy issuance, claims processing, and policyholder inquiries. This reduces the administrative burden on insurers, allowing them to focus on core underwriting and risk management activities.
5. **Customer Relationship Management:** Brokers maintain relationships with policyholders over time. This helps insurers in customer retention and allows them to cross-sell additional products or services.
6. **Risk Mitigation:** Brokers can help insurers diversify their risks by distributing policies across a wide range of policyholders and industries, reducing exposure to concentrated risks.

Benefits for Policyholders:

1. **Expert Advice:** Insurance brokers provide expert guidance to policyholders, helping them understand their insurance needs and choose the right coverage options. This ensures that policyholders have suitable and comprehensive insurance protection.

2. **Access to Multiple Insurers:** Brokers typically work with multiple insurance companies, giving policyholders access to a variety of insurance products and competitive pricing options. This allows policyholders to compare and select the best policy for their specific needs.
3. **Claims Assistance:** In the event of a claim, brokers can advocate on behalf of policyholders, helping them navigate the claims process and ensuring they receive a fair settlement.
4. **Time Savings:** Brokers save policyholders time and effort by handling the insurance shopping process, policy administration, and renewal processes. Policyholders can rely on brokers to manage these tasks efficiently.
5. **Policy Customization:** Brokers assist policyholders in tailoring insurance policies to their unique circumstances, ensuring that coverage aligns with their specific risks and pREFERENCES.
6. **Continual Support:** Insurance brokers provide ongoing support throughout the policy period. They can advise policyholders on changes in coverage needs, regulatory updates, and risk management strategies.
7. **Advocacy:** In cases of disputes or disagreements with insurers, brokers can act as advocates for policyholders, working to resolve issues and ensure fair treatment.

Distribution Channels Aligned to Target the Various Customer Segments in Indian Insurance Sector



A Summary of Key attributes of various distribution channels in India

Type of channel	Cost	Accessibility	Profitability	Efficiency	Reach	Security	Performance
Agency	Medium	High	Medium	Average	Medium	Medium	High
Work Site Marketing	High	Low	Medium	Average	Low	High	Low
Micro-Insurance	Low	High	High	Average	High	Average	Average
Bancassurance	Medium	Medium	Medium	Medium	Low	High	Average
Direct Sales/Marketing	Low	Medium	High	Average	Low	Average	Average
Virtual sales (internet)	Very low	Very high	Very high	High	High	Medium	High
Shoppassurance	Medium	Low	High	High	High	High	High
Telcassurace	Low	High	High	High	High	Low	High

Source: Insurance Institute of India

The assessment of insurance penetration and density serves as an indicator of the extent to which the insurance sector has progressed in its development. Insurance penetration is commonly assessed by determining the proportion of insurance premiums relative to the Gross Domestic Product (GDP). On the other hand, insurance density is typically computed by dividing the total insurance premiums (expressed in US dollars) by the total population, resulting in a per capita premium. The non-life industry has had significant growth and expansion inside the country during the past decade. The density has had an increase from US \$ 2.4 in 2001 to US \$ 13.2 in 2016. The following data presents the distribution of Gross Direct Premium Income (GDPI) among different channels in the Non-Life insurance sector:

Conclusion: Emerging Challenges

- ❖ Innovation, as it has been observed, entails the undertaking of calculated risks, a fundamental aspect inherent to the operations of an insurance company. Various initiatives or activities, such as a wide range of products, are still being pursued. The insurance sector is characterised by a lack of frequent innovation, which is unexpected given the relatively low level of risk involved and the potential for significant insights to be obtained.

- ❖ In order to foster a culture of new product creation within the insurance industry, it is imperative that the sector addresses and resolves its current state of sluggishness. The establishment of a culture of innovation within the organisation is of utmost importance. It is apparent that individuals or entities responsible for assuming risks who possess the foresight and strategic preparation to adapt to and navigate through changes will be empowered to shape their own trajectory. These actors recognise product innovation as a cultural aspect rather than a mere departmental function. This implies that it is imperative for all businesses to have a culture of experimenting, embracing the acceptance of mistakes, and encouraging the active involvement of all stakeholders and interested parties in the production of ideas for product innovation.
- ❖ The Indian non-life insurance market is poised for substantial growth in the coming years, driven by factors such as rising incomes, heightened awareness of insurance, urbanization, and mandatory insurance products. To realize this potential, the industry must address challenges related to low penetration, fraud prevention, and catastrophe risk management, ensuring long-term growth and sustainability.

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Importance of Technology in Facility & Building Management

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Abstract

Facility management (FM) is a profession that encompasses multiple disciplines to ensure functionality, comfort, safety and efficiency of the built environment by integrating people, place, process and technology. Today the FM Focus is on the trends of changing Business Strategy & Environment, emphasis on the frame work to create and adopt Business & support model to align to the current market trends in Corporate Real Estate, Facility management, Work Place solution, Communication, Environmental, Renewable, Sustainability, Health, Safety, Technology, Innovation, Global trends, Industry bench marking practices.

Facility Management is considered as business enabler, The FM strategy is to deliver best value, introduce innovation, support the core business drivers and maximize commercial use of the built environment.

Keywords

Facility Management, Building, Digitization

The use of innovative digital technologies and tools are playing key role in significantly improving the Facility Management function and operations. The aim of this article is to present the importance of digitization in the Facility Management .The article investigates the potential of technology to support the facility management and maintenance.

Covid 19 has made the entire Facility Manager realized one thing, that how important is to adapt technology to ensure the BAU and employees wellness in effective manner.

Background

During Covid the organizations which already had the technology as a part of their Facility Management operations were able to ensure smooth BAU and also those buildings which are already tech enabled have been most productive during the period of Covid 19. Covid-19 has caused widespread disruption. Many are working from home to help prevent the spread of infection.

Many employees have been catapulted into the use of video conferencing and cloud-enabled file-sharing to replace physical meetings and traditional ways of working. These have often proved efficient and productive, enabling these technologies to become embedded in workplace processes so that some employees are now empowered to work remotely for the longer term and collaboration is not impacted.

While safe access to premises was paramount and various contact-tracing technologies, such as Bluetooth-enabled wristbands and Smartphone apps, like Arogya Setu are already being used by the workforce which enables the facility management team in screening the employees before they enter.

Digitization inevitably leads to automation with integrating all the elements of the workplace and automating essential tasks and optimizing costs.

The internet of things (IoT), robotic process automation (RPA), artificial intelligence (AI), smart building/smart workplace sensors and monitoring and digitization are dramatically changing where and how people work. These technological advances are also changing the way we develop, plan, and manage facilities.

Sensors can now detect everything from burned-out light bulbs to air turnover in a room. Employees can receive real-time information about when they need to leave the office to arrive on time for an appointment, where to park and how to report building issues through online systems that can instantly trigger a repair. Cloud-based management systems can collate building data across multiple facilities and equipment to flag and prioritize system responses and repairs. Ultimately, these new technologies can minimize the mundane tasks while focusing on strategic role within the organization.

Operations can be further optimized during performance data to obtain information such as when and how many employees are in the office. This allows to capture and analyse data that was previously tracked manually and can help in reducing cost and generate new revenue streams.

Facility Management Team, who has long looked to automate building maintenance activities, all the IoT hype may sound inflated: Is this just a new buzzword for old practices? But it may not be. Yes, companies have been installing sensors and automating activities for some time, primarily aiming to realize the benefits of low-hanging fruit such as cost savings and operational efficiency through improved energy management and reduced personnel costs. Figure below depicts approaches to developing a connected BMS, each progressively more connected and integrated than its predecessor.

Most Building Owners install BMS on a piecemeal basis to automate individual tasks such as elevator or lighting control;5 not surprisingly, owners then must collect and aggregate data from various places (see figure above). Partially integrated BMS: Realizing the limitations of individual BMS, more mature CRE companies have begun using partially integrated BMS, combining automation of a few activities with a common focus, such as energy management systems. Compared with individual BMS, these systems are more integrated, require less manual intervention, and enable faster decision making. More importantly, Building owners use these systems to enhance tenant and end-client experience through sustainability initiatives (including to support LEED and other green building certification standards), open Wi-Fi access, and so forth. Fully integrated, IoT-enabled BMS: In sharp contrast, a CRE company's

IoT-enabled systems can be fully integrated BMS, allowing higher-order cost, productivity, and revenue benefits with a deep customer and data focus. It can leverage one infrastructure to operate all building management solutions and require minimal to no manual involvement. Internet protocol or IP-enabled devices can facilitate intelligent decision making by automating point decisions and enhancing strategic insights; this allows data to automatically flow all the way around the Information Value Loop without manual interaction, enabling quick action on the data and creating new value for CRE companies. The Internet of Things in the Facility Management industry. The way in which IoT-generated information creates value represents a fundamental shift for Building Management in creating value through information generated by connected systems, IoT applications can not only improve efficiency but provide new opportunities for differentiation and even new revenue. Building Management can do this by implementing full sustainability programs with supportive analytics, a deeper focus on tenant and endclient relationships and experiences (footpath technologies that assess shoppers' movement patterns in a mall through signals from their cellphones), or even enhanced revenue generating services to tenants (infrastructure, analytics, and so forth). With so many options, determining which is right for a particular Building Owners requires understanding exactly how IoT technology can create value for them and their tenants as well as the latter's end users.

We have seen in recent times Smart cities technology have been enabling the Facility Managers to efficiently manage their operations and even during the Covid period many of these smart cities have played very critical role.

Smart city technology can help cities operate more efficiently while improving services to citizens and businesses, among many other benefits. While the definition of a smart city is still evolving, a few things have become clear. Smart cities are expected to leverage information and communication technologies to enhance service levels, citizen well-being, sustainability, and economic development.

Smart city technology can make cities more effective and efficient, which is necessary, given the projected rapid growth in urban populations over the next few decades.

Advancements in "big data" and connected devices will allow these cities to access the information that's never been available before. A well-designed data analytics strategy is expected to give city officials the ability to access and analyze a massive amount of information and easily glean meaningful, actionable insights. When a city can monitor desired metrics in real-time, service levels will definitely rise.

Smart cities are expected to transform the work environment by streamlining manual processes and giving employees greater opportunities to reach their full potential while also providing citizens with improved services.

The experience of Indian cities in responding to COVID-19 has clearly demonstrated that technology and data-driven decision making are critical for ensuring effective citizen outreach and service delivery. They can serve as models for helping other governments around the world realize the benefits of smart cities in a post-pandemic world.

As seen in many countries across the globe, smart cities in India too have been playing a major role and leading the way in the country's battle against the COVID-19 pandemic.

Smart cities like Agra, Chandigarh, Vadodara, Bengaluru and Kakinada have been able to effectively tap technologies like IoT/sensors, tele-healthcare, data and analytics, and contribute significantly to India's fight against COVID-19.

Objective of the Study

The COVID-19 pandemic has put the spotlight on the facility management (FM) services, with a focus on cleaning, disinfecting and sanitization. Facility management team are implementing the learning from other Asian and European countries, ahead of the curve in handling COVID situation by introducing best practices, technology and innovative solutions at competitive prices to meet the current and future workplace challenges. The FM industry is a perfect example of identifying bottle necks and creating solutions in response to this crisis. Recently, there has been considerable speculation about the future of the facilities management industry. With scores of commercial real estate enterprises active across global markets, the need to manage and maintain buildings has never been a more pressing concern.

A value driven FM operation requires a change in approach that includes the convergence of the right tools and technology that can empower facilities in achieving optimal performance.

The use of innovative digital technologies and tools are playing key role in significantly improving the Facility Management function and operations

The objective of the research is to devise identifying the role and benefit of technology models which if adapted can add significant value to the Facility Management Professionals & Industry including the building owner.

The aim of this article is to present the importance of digitization in the Facility Management .The article investigates the potential of technology to support the facility management and maintenance.

Covid 19 has made all the Facility Manager realized one thing that how important is to adapt technology to ensure the BAU and employees wellness in effective manner.

Related Literature Review

Top trends in facilities management

- a)How society, demographics and technology are changing the world of FM by CBRE
- b) Six emerging trends in Facility Management by Mc Kinsey :15th Nov 2019.
- c) Five facility management trends set to define 2020 by FM media on 14th January 2020.

- d) ISS 2020 Vision Scenarios for the future of the Global Facility Management Industry
- e) Potential Effects Of Technological Innovations In Facilities Management Practice by U.J. Adama and K.A. Michell
- f) News article India's smart cities playing big role in technology led battle against COVID-19 published by Geospatial world.

Hypothesis

The hypothesis that this research addresses is as to substantiate that the adaption of appropriate technology platform by the Facility Management professionals or the Building Management, based on the belief-desire-intention formalism, supported with semantic knowledge bases that are synchronized in near real time to the environment, delivers several benefits in the realization of an intelligent technology framework. Specifically that framework can usefully support some fundamental knowledge requirements in the discipline of facility management.

Case Study: Case study The Royal BAM Group

The Royal BAM Group comprises 25 companies operating around the world within the built environment, with employees totalling 28,000. By 2020, BAM will be a '10+ business' – a company that achieves more than 10% Return on Capital Employed (ROCE), that operates in the European construction sector's Top 10, with a turnover of more than €10bn. The '10+ status' corresponds to the BAM mission to 'create value for customers, shareholders, employees, and building partners by bringing together people, knowledge, and resources at every stage of the construction process in order to produce a sustainable built environment', and is BAM's response to the increasing demand for multidisciplinary work during the whole 'lifecycle' of building projects. BAM Construct in the UK delivers a variety of services, from constructing new facilities through to running and managing buildings. This is achieved via its portfolio of companies: • BAM Construction • BAM Properties • BAM Design • BAM FM • BAM Services Engineering • BAM Plant In addition to BAM Construct UK Ltd, there are two further companies operating in the UK – BAM Nuttall Ltd, which offers a full range of civil engineering activities, and BAM PPP Ltd, the investment arm of Royal BAM Group, which operates in the specialist field of Public Private Partnerships (PPP) to develop and deliver public sector projects that require private sector finance and investment. BIM is already a standard element of BAM's design offering and is fast becoming an intrinsic part of its construction tender and project implementation processes, significantly streamlining the actual build. One of the main drivers for this is to improve the sustainability rating of a building, which is heavily influenced by its design. BAM realised it had the opportunity to influence its clients in creating greener building solutions on Design and Build or PFI projects. Planning and visualising its projects virtually has helped BAM Construct create design alternatives, optimise solutions, undertake clash detection and carry out 'what if' analyses, guiding it to a more cost effective way of constructing buildings.

BAM FM provides traditional FM services, including cleaning, catering, security and building maintenance, and some less traditional functions, such as fielding teams of leisure attendants and

lifeguards. It also advises on facility-related legislative issues, evaluation and benchmarking. Challenges of BIM (**Building Information Modelling (BIM) in FM**) Because of the multidisciplinary nature of BAM.

What is BIM ?

Buildings are getting smarter and so are the technologies used to govern them. One of the most prevalent pieces of technology businesses can deploy today is Building Information Modeling (BIM). What is BIM in facilities management? It's the next step in digitization of facilities, to glean quantifiable information from physical environments. Everyone from architects and contractors, to facilities managers and maintenance technicians use BIM. Today, BIM is a cornerstone for smart buildings, office IoT build outs, and all-around better facilities management.

BIM is a process-driven technology used to map and quantify the physical aspects of a building. BIM is part of everything from building design, to construction of a structure, to facilities maintenance. The core objective is simple: quantify as much of a building as possible and use that data to inform better decision-making about how to manage facilities.

The simplest introduction to BIM for facilities managers is through digital twins. A digital twin is a 3D digital replication of a physical building and the baseline model for a BIM record. A digital twin allows a facilities manager to identify different elements of a building, isolate them for their information, and understand the needs of both that specific element and its relationship to peripheral systems.

There's virtually no limit to what BIM can tell us about a building. As machine learning folds into BIM software, computers are able to tell us more about our buildings than we could ever hope to learn looking at schematics and blueprints!

How does BIM benefit facility managers?

The results of BIM for facility managers are undeniable. Researchers have spent decades developing BIM to aid building managers as they seek to reduce costs, improve building ROI, streamline operations, improve employee engagement, and prevent problems from arising. Here are some of the ways, specifically, that BIM benefits facilities managers on a day-to-day basis.

- Generates cost savings in facilities upkeep, maintenance, and improvements
- Improves project efficiency and expedites delivery time for results
- Reduces safety risks and clashes, which lowers passive change orders
- Offers greater predictability for facilities maintenance and upkeep
- Improves the visibility and oversight of facilities managers in everyday upkeep
- Provides a system of record and visibility for vital systems within the building
- Integrates with Facility Management Software's & systems to automate processes

BIM goes beyond facilities management, too. The information and modeling provided by BIM help facilities managers communicate needs and expectations with contractors and craftspeople. BIM facilitates total management of a building across diverse teams. Anyone can glean robust information from the powerful data of a digitized building and its systems to provide better, more efficient, targeted results.

BIM matters in the future of smart workplaces

As buildings become smarter, they'll continue to produce information that's relevant to BIM. Every IoT sensor provides contextual data points that factor into the ecosystem of a building. Someday soon, BIM will be able to replicate a real-time dynamic picture of a building, from the infrastructure down to the people within it. And, with each new data stream aggregated into the greater BIM schema, facilities managers will have that much more information to work with as they strive to create the best possible management approach.

Case Study Continues: Construct's business, which encompasses design, construction and property development, facilities management and facilities engineering, there is a great deal of synergy within the Group; and while the design and construction teams had already utilised BIM for some time, it became increasingly apparent that the FM teams needed to apply it across a building's lifecycle. In fact there was a clear deadline for BIM to become integrated into BAM FM. The firm operates a number of public sector buildings within its PFI contract portfolio, and so with an eye on the 2016 GSL deadline [see box on page 13] that has been set for companies tendering for Government construction work, a key challenge for the FM team was to adopt level 2 BIM throughout all its lifecycle management projects. Explains Kath Fontana, Managing Director of BAM FM: "Our design and construction teams had been using BIM for many, many, years, and over the last few years it's become much more possible – because of Cloud computing and the like – to use it across a building's lifecycle. "So while we already had a strategic approach to BIM as a business, it became an obvious progression to develop it for facilities management." One major challenge is in integrating BIM with existing facilities management software packages – already used routinely in FM, such as Computer Aided Facilities Management (CAFM). In February 2013 BAM announced that it had completed the software and data systems to prove that BIM data could be automatically transferred into FM software (CAFM). As Fontana explains: "We worked hard to develop Building Information Modelling for FM to push the boundaries of BIM innovation beyond the design and construction phases and into the operations stage, generating benefits across a building's lifecycle and meeting the requirements for Government Soft Landings (GSL) and PAS 1192-2:2013. "So while there has been a push in terms of our business and our own strategy and how we're trying to develop our own business, there was also a pull from the client side and specifically Central Government in terms of what they're trying to achieve. "So our reason for embracing BIM is down to a blend of the two drivers – which is in all likelihood the case for many working in FM." For building operators and end-users, BIM improves the performance of their assets over the long term, and gives certainty that buildings will perform as expected from day one. Allowing assets to be managed and maintained more efficiently and proactively has obvious advantages, not least providing accurate and timely information to engineers and maintenance staff 'in the field', on handheld electronic devices, reducing the need for paper and unwieldy, unconnected systems. The benefits of BIM for the whole life

of a building are two-fold – both from the perspective of the end-user and for facilities management. For the end-user:

- Sustainability – buildings are fit for purpose from the outset as clients can see exactly how their buildings will perform at an operational level, leading to improved performance in areas such as energy, carbon, cost savings and user experience.
- Proactive facilities management and maintenance – FM staff have operations data at their fingertips on a handheld device, allowing staff to respond to incidents in a timely manner and undertake proactive maintenance to prevent issues in the future, saving time and money.
- Improvements in the planning of changes and maintenance, plus responses to reactive tasks, achieving a 'Faster First Fix' and improving building and service performance. For Facilities Management:
 - Certainty – BIM for FM provides a best practice approach that seamlessly links design, construction and FM data into the BIM model, ensuring that buildings perform as predicted during the operations phase.
 - Time saving and efficiencies
 - Easier handover – gone are 2D drawings and paper O&M manuals which can be hard to locate and interpret; instead BIM for FM offers 3D walkthroughs and visuals that contain the relevant facilities data, making it easier for operations teams to understand their building and how it works.

Says Fontana: "I think I would probably compare using BIM instead of alternatives, such as 2D drawing or O&M manuals, as equivalent to making the transition from a typing pool to email. It's that kind of evolution. "What BIM does is to give us an opportunity to take a more strategic approach to our buildings. This is because digital data is much easier to manipulate and use. On a day-to-day basis it makes operations more efficient, and at the strategic level it makes FM more effective." What this means in practice, as an example, is that BIM helps reduce an engineer's repeat visits to a building, meaning they should be able to know before they visit what type of plant it is, the equipment associated with that plant, the manufacturer's information, the part numbers, and where the equipment is located – all of which reduces the requirement to go and carry out an initial visit and survey before they need to begin the work. This not only reduces the time it takes for FM to fulfil a job, but it also reduces the level of disruption for clients. Says Fontana: "In practical terms, it means you don't have to go to a room and take down all the ceiling tiles to find a connection, as you don't have to do any intrusive work unnecessarily. This means it should not only improve reactive and planned maintenance, but importantly, it should also – if you're using the model correctly – enable you to take a strategic approach to predict the performance of a building in the future." BIM is also discovering that having a BIM enabled building is beneficial when it comes to letting. This is because even before the building is finished, a client can see what it is going to look like, and how they could set up their offices. Says Fontana: "We're getting feedback that a building that has BIM is more valuable. This is very anecdotal, so you couldn't put a number on it yet, but there's a perception that it [could become] a valuable part of the asset transfer process. "Another important point to understand is that by using a BIM process (PAS

1992-2), the information being exchanged should be verified before it is published. For FMs this means an end to the laborious and costly process of surveying, capturing and recording assets, and better still should remove the risk of wrongly pricing maintenance projects due to poor asset information.

Methods

Type of Research

Data Collection Details

Data Analysis Details

Use of several methods including case studies , data sources and validation of findings with industry representatives and conference peer-review processes, have been used to validate the research design and findings during the research process Initial exploratory interviews, observations in industry seminars and industry reports.

The starting point for this research was the interest on digitalization raising from the real estate & facility management industry. To investigate what this interest was in particular, the author had been participating in several industry seminars, where digitalization was on the agenda.

At the same time, several industry reports were published real estate & facility management sector where studied. The observations from industry seminars and reports were used for designing initial exploratory interviews with real estate owners.

These seminars and reports addressed the topicality of the digitalization research in the sector, which indicate that the research has potential for practical relevance.

The Study reveals that the author, have been core advisory member of various associations and in touch with the fraternity and been following the trend globally, few implementations on technology front which are implemented by the author and helped a lot to his organization .

The innovations are just not confining to commercial buildings but even many residential complexes are initiating the technology innovation.

The Study reveals that the Authors society has implemented My Gate App , which is a visitor management system. It helps in managing a gated community security needs like entry and exit of visitors, vendors, domestic help and online delivery personnel. It also helps in managing gated community needs like clubhouse and amenities management, complaint management, accounting and billing and more. Its also a type of society connect, for a host of services such as accounting ,facility management, security, maintenance requests, communication and visitor management requests that enhance the living experience in societies.

The study reveals that the author have been doing research and have read various articles which substantiates how important was the phase of Covid to prove that technology is the key enabler to overcome any crisis.

Results

The Study reveals that technology is the key enabler. The use of smart building technology can enable more efficient facilities management and help support a safe and healthy environment. How can we track potential exposure within the office? How can we reduce and better manage density? How can we improve air quality in our facilities? How do we make the environment more comfortable? How do we keep our facilities cleaner? How can we better manage our facilities? Smart maintenance for HVAC systems Facility management and cleaning Building management, the answer to all this is only Smart Building Technology. From data to safety management its all that can be managed by technology. How can we optimize the work place by opting flexi and collaborative work place?

Using technology and a proven methodology for a comprehensive and proactive approach to facilities management provides numerous advantages, such as ensuring business continuity, promoting a consistent brand and image and increasing returns on facility investments.

Discussion

The findings from the literature review demonstrate that there is a need to integrate technology into the role of FM managers.

The integration of technology into the facility management space is still relatively young. As it continues to play a bigger role in our work and personal lives, you can bet that the use of technology within the facilities management space is only going to grow.

Beyond utilizing current facility management software, you can expect the eventual introduction of BIM, drones for monitoring hard-to-access parts of the office, smart desks and chairs to better optimize worker productivity and even nanotechnology in office equipment that will repair itself. Of course, some of these technological advancements won't become part of your office routine for many years, but it's important to start integrating technology into your current workplace to lay the foundation for a successful future. Start with small, easy changes and you'll be ready for whatever high-tech elements emerge to revolutionize the workplace.

Conclusion

The future of facility management needs people who understand how to build algorithms and apply this to the cleaning protocols. Or people that are able to design robotics concept for cleaning and are

capable to do the robot's maintenance. These are all jobs with a new variety of task people can perform and are really important to develop new business models around new concepts.

Knowing this change is inevitable, the facility manager needs to start focusing on the jobs cleaning operatives will have in the upcoming years and educate these people to help them grow towards the change. We now teach generalists, but we need specialists; people that are able to keep up with the fast pace of change.

Institutions that understand the value of facilities and the importance of a strong capital-planning management system will be at a competitive advantage. They will have a better understanding of current and long-term facility conditions and capital requirements.

Artificial Intelligence has allowed these solutions to be even more effective and has increased the range of applications for technology. Machine Learning, a subset of AI, has proved particularly useful for monitoring stock levels and identifying when spare parts need to be ordered.

There is a need to embrace new ways of doing things as the FM landscape changes. However, whilst there is considerable added value to be gained from new technologies, it is important that FM providers select, implement and correctly manage the correct suite of solutions for their client.

This means assessing what is facility appropriate, cost appropriate and appropriate for their staff's level of training and knowledge. Opportunities abound for FM providers that are willing to truly commit to them. However, an advanced solution in the hands of unsophisticated users, together with poorly managed data, can create more problems than it solves.

As the old adage goes: Garbage In, Garbage Out.

In future, technology will become increasingly important for lifecycle asset management, driving resources more effectively and for investment decisions; that digital connectivity will deliver improved customer service; and that more technology and analytics experts would be needed in FM to embrace developing technology and to make the industry smarter and more productive.

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