

BOLSTERING MANAGEMENT ETHOS THROUGH ENVIRONMENTAL EDUCATION

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ABSTRACT

Environmental Sustainability is a vital concept that is widely accepted as one of the most important goals of Development of every nation in the world, yet it remains innately hard to implement because of its intricacy and changes in thought processes and policies that it mandates. Sustainability is commonly believed to include a balanced development in the three domains of Social Equity, Economic Growth and Environmental Care. Sustainable Development is founded on the ethical obligation to the well-being of not only of current populations but also the well-being of future generations as well. Thus, there is an urgent need for developing an ethos of Sustainable Development in the society which can be fostered through a sound value system and can only be diffused through education. Keeping this in mind, the present study is directed towards examining the role of Environmental Education, especially amongst the young school children in developing a Sensitivity and deep understanding of the state of environment. It is only in the early formative stage of life that sensitivity and the perception of the students can be formed which will help them to comprehend the ethos of sustainability and develop a set of decision-making skills that may be employed in its pursuit in the future. The present study has been conducted through questionnaire administered to secondary level school students of Mumbai and its western fringe region of Vasai. The study basically aims to identify and analyse if Gender and Locale play a pivotal role in influencing the sensitivity of students towards the environment and also to investigate the measures that can be undertaken to bring greater environmental sensitivity and behavioural change in perception towards the environment and create more responsible citizens and decision makers of the future.

Key Words: *Ethos, Sustainable Development, Environmental Education, Environmental Sensitivity, Gender, Locale.*

Introduction:

The Earth that we inhabit is getting rapidly transformed due to a variety of human activities. Global Warming, Ozone Depletion, Deforestation, Acid Rains, Rapid Unplanned Urbanisation, Destruction of Biodiversity, Pollution, Rapid exploitation of Energy Resources are just a few of the major Environmental Problems the world is experiencing at the moment. There is an immediate need to slow down the process, if not arrest it totally. Awareness concerning the need to protect and sustain the environment has to be ingrained in human ethos. It is the moral responsibility of the present generation to take wise decisions at the present so that some of these resources can be passed on to the future generations as well. Thus, there is an increasing concern for creating Environmental Awareness and Sensitivity amongst all the citizens and the student's community in particular.

This awareness regarding the need to protect the environment has to start academically at the school level through Environmental Educational process. Therefore, the school and educational system where formal educational are received by the student,

have a major and pivotal role to play in the environmental educational process.

Based on this need The UN conference on Environment and Development also known as the Earth Summit in 1992 in its AGENDA 21, Chapter 36 has emphasised on

- a. Reorienting education towards sustainable development;
- b. Increasing public awareness;
- c. Promoting training. (<https://www.gdrc.org/uem/ee/a21-c36.html>).

Accordingly, in 1991, the honourable Supreme Court of India passed an order making environmental education mandatory to fulfil the fundamental duties of citizens to protect and improve the natural environment. Thus, Environmental Studies is a compulsory subject being taught in all schools in Maharashtra. The subject aims to make the students aware and sensitize them about the perilous effect of environment degradation by generating knowledge, awareness and consciousness among them about different environmental components and the urgent need for Sustainable Development.

Need for the Study

Post globalisation there is a greater association between the rural and urban areas especially the fringe areas where there has been an increase in shuttling and has become a commuter's zone. Globally it is seen that urban work force prefers to reside in the fringe or peri urban areas and travel every day to the urban cities for their jobs. Thus, these regions are still classically having rural characteristics but there is a tremendous influence of the urban city on their life styles and environs. There is also a great amount of superimposition of urban characteristics on these fringe areas and their natural environments are also under threat. Thus, a study of environmental sensitivity with an emphasis on the location, is of utmost importance and the need of the hour.

Mumbai is one of the most populous cities of India with a recorded population of 12,442,373 (census 2011 data). At present, in 2020 Mumbai's urban population is estimated to be over 22 million and this burgeoning population has resulted in high price of land and housing within the city. Vasai which is on the outskirts of Mumbai is a typical fringe region of the city of Mumbai, displaying the distinctive characteristics of mixed rural and urban populations and land uses, which begins at the point where agricultural land uses appear near the city and extends up to the point where villages have distinct urban land uses or where some persons, at least, from the village community commute to the city daily for work or other purposes (Ramachandran 1989) as in Bentinck, J. (2000).

Objectives of the Study:

- 1) To investigate the environmental sensitivity among the secondary school students of an urban area and its fringe region.
- 2) To identify and analyse the factors influencing the sensitivity of students towards the environment.
- 3) To evaluate the level of environment sensitivity among the secondary school students based on gender.
- 4) To evaluate the level of environment sensitivity among the secondary school students based on locale.

Research Hypotheses of the Study

- Ho 1: There is no significant variation in the Awareness of different global and local environmental issues of secondary school students based on Gender. and Locale.
- Ho 2: There is no significant variation in the Realization of need for Management of Natural resources like water, soil, forest, air, etc. of secondary school students based on Gender. and Locale.
- Ho 3: There is no significant variation in the Mindfulness of necessity for Wild Life Protection of secondary school students based on Gender. and Locale
- Ho 4: There is no significant variation in the Apathy towards Environmental Problems of secondary school students based on Gender. and Locale.
- Ho 5: There is no significant variation in the Consciousness of Significance of Environmental Education of secondary school students based on Gender. and Locale.

Methodology Adopted:

In the present study, random sampling technique was used to select the sample. The sample consisted of total 158 secondary school students (84 male students and 74 female students) from different schools in a highly urbanised city like Mumbai and its Fringe city of Vasai. The tool used in the present investigation was the Environment Sensitivity Measure test developed by the researcher herself.

This tool measures the sensitivity levels of students towards environmental issues and its protection There is a total of 25 statements in the questionnaire. 5-point Likert scale was used to determine the opinion of the students. The students had to read the statements and indicate their preferential options in the form of Strongly Agree, Agree, Neutral, Disagree and Strongly Disagree. The statements were randomly organised, with some statements which were indicative of High sensitivity. For these statements the Strongly Agree option was given 5 points, Agree- 4 points, Neutral- 3 points, Disagree- 2 points and Strongly Disagree- 1 point. In statements which were indicative of Poor sensitivity, Strongly Agree was given 1 point, Agree- 2 points, Neutral-3

points, Disagree- 4 points and Strongly Disagree- 5 points. In all there were 11 positive statements and 14 negative statements. Thus, the maximum score that can be earned is 125 and the minimum score is 25.

Further the data was analysed on the basis of 5 categories measuring the sensitivity levels of students towards environmental issues and its protection, viz.

(i) Awareness of different global and local environmental issues,

(ii) Realization of need for Management of Natural resources like water, soil, forest, air, etc.,

(iii) Mindfulness of necessity for Wild Life Protection,

(iv) Apathy towards environmental problems and

(v) Consciousness of Significance of Environmental Education.

Data and results of 2 way ANOVA test done to measure the significant difference between the Urban and Fringe region students in their environmental sensitivity based on

Table 1: Awareness of different global and local environmental issues:

	URBAN	FRINGE
MALE	1079	1321
FEMALE	1398	678

Anova: Two-Factor Without Replication

<i>SUMMARY</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>
Row 1	2	2400	1200	29282
Row 2	2	2076	1038	259200
Column 1	2	2477	1238.5	50880.5
Column 2	2	1999	999.5	206724.5

ANOVA

<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Rows	26244	1	26244	0.113433	0.793184	161.4476
Columns	57121	1	57121	0.246891	0.706423	161.4476
Error	231361	1	231361			
Total	314726	3				

Based on the above data it can be inferred that the Awareness levels of different global and local environmental issues of secondary school Male students is the same as the Female students.

Moreover, we can also infer that there is no variation in the Awareness levels of different global and local environmental issues of secondary school students of a highly

urbanised city like Mumbai and its Fringe city of Vasai which has experienced a spurt of urbanisation due to its proximity to Mumbai.

Thus, we accept the Null Hypothesis Ho 1 that there is no significant variation in the Awareness of different global and local environmental issues of secondary school students based on Gender, and Locale.

Table 2: Realization of need for Management of Natural resources.

	URBAN	FRINGE
MALE	820	936
FEMALE	1053	482

Anova: Two-Factor Without Replication

SUMMARY	Count	Sum	Average	Variance
Row 1	2	1756	878	6728
Row 2	2	1535	767.5	163020.5
Column 1	2	1873	936.5	27144.5
Column 2	2	1418	709	103058

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Rows	12210.25	1	12210.25	0.103483	0.801862	161.4476
Columns	51756.25	1	51756.25	0.438641	0.627594	161.4476
Error	117992.3	1	117992.3			
Total	181958.8	3				

Based on the above data it can be inferred that the Realization of need for Management of Natural resources of secondary school Male students is the same as the Female students. Moreover, we can also infer that there is no variation in the Realization levels of need for Management of Natural of secondary school

students of a highly urbanised city like Mumbai and its Fringe city of Vasai.

Thus, we accept the Null Hypothesis Ho 2 that there is no significant variation in the Realization of need for Management of Natural resources like water, soil, forest, air, etc. of secondary school students based on Gender and Locale.

Table 3: Mindfulness of necessity for Wild Life Protection

	URBAN	FRINGE
MALE	452	483
FEMALE	597	298

Anova: Two-Factor Without Replication

SUMMARY	Count	Sum	Average	Variance
Row 1	2	935	467.5	480.5
Row 2	2	895	447.5	44700.5
Column 1	2	1049	524.5	10512.5
Column 2	2	781	390.5	17112.5

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Rows	400	1	400	0.014692	0.923209	161.4476
Columns	17956	1	17956	0.659541	0.565769	161.4476
Error	27225	1	27225			
Total	45581	3				

Based on the above data it can be inferred that the Mindfulness of necessity for Wild Life Protection of secondary school Male students is the same as the Female students. Moreover, we can also infer that there is no variation in the Mindfulness of necessity for Wild Life Protection of secondary school

students of a highly urbanised city like Mumbai and its Fringe city of Vasai.

Thus, we accept the Null Hypothesis Ho 3 that there is no significant variation in the Mindfulness of necessity for Wild Life Protection of secondary school students based on Gender. and Locale

Table 4: Apathy towards Environmental Problems

	URBAN	FRINGE
MALE	1011	1138
FEMALE	1355	642

Anova: Two-Factor Without Replication

SUMMARY	Count	Sum	Average	Variance
Row 1	2	2149	1074.5	8064.5
Row 2	2	1997	998.5	254184.5
Column 1	2	2366	1183	59168
Column 2	2	1780	890	123008

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Rows	5776	1	5776	0.032744	0.886035	161.4476
Columns	85849	1	85849	0.486672	0.612218	161.4476
Error	176400	1	176400			
Total	268025	3				

Based on the above data it can be inferred that the Apathy towards Environmental Problems of secondary school Male students is the same as the Female students. Moreover, we can also infer that there is no variation in the Apathy towards Environmental Problems of secondary school students of a

highly urbanised city like Mumbai and its Fringe city of Vasai.

Thus, we accept the Null Hypothesis Ho 4 that there is no significant variation in the Apathy towards Environmental Problems of secondary school students based on Gender. and Locale

Table 5: Consciousness of Significance of Environmental Education

	URBAN	FRINGE
MALE	496	598
FEMALE	649	332

Anova: Two-Factor Without Replication

SUMMARY	Count	Sum	Average	Variance
Row 1	2	1094	547	5202
Row 2	2	981	490.5	50244.5
Column 1	2	1145	572.5	11704.5
Column 2	2	930	465	35378

ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Rows	3192.25	1	3192.25	0.072733	0.8323	161.4476
Columns	11556.25	1	11556.25	0.263299	0.698183	161.4476
Error	43890.25	1	43890.25			
Total	58638.75	3				

Based on the above data it can be inferred that the Consciousness of Significance of Environmental Education of secondary school Male students is the same as the Female students.

Moreover, we can also infer that there is no variation in the Consciousness of Significance of Environmental Education of secondary school students of a highly urbanised city like Mumbai and its Fringe city of Vasai.

Thus, we accept the Null Hypothesis Ho 5 that there is no significant variation in the

Consciousness of Significance of Environmental Education of secondary school students based on Gender. and Locale.

In addition, an attempt has been made to find the differences between students in two regions regarding the level of environmental sensitivity for each of the five sub categories. Weight for each of the five sub categories were calculated based on the mean scores obtained and then ranked from the highest to the lowest based on weighted mean. The details are made available in Tables 6, 7 and 8.

Table 6: Rank Order of Environmental Sensitivity of students of Mumbai:

Rank	Category	Mean	S.D	Weighted Mean
1	Awareness of different global and local environmental issues	353.86	12.76	88.47
2	Apathy towards environmental problems	336.57	15.13	84.14
3	Consciousness of Significance of Environmental Education	381.67	1.62	76.33
4	Realization of need for Management of Natural resources	374.6	5.10	56.19
5	Mindfulness of necessity for Wild Life Protection	349.67	8.14	52.45

Table 7: Rank Order of Environmental Sensitivity of students of Vasai:

Rank	Category	Mean	S.D	Weighted Mean
1	Awareness of different global and local environmental issues	285.57	7.87	71.39
2	Apathy towards environmental problems	254.29	17.18	63.57
3	Consciousness of Significance of Environmental Education	310	1.78	62
4	Realization of need for Management of Natural resources	283.6	4.87	42.54
5	Mindfulness of necessity for Wild Life Protection	257	8.56	38.55

Table 8: Rank Order of Environmental Sensitivity of students - Overall:

Rank	Category	Mean	S.D	Weighted Mean
1	Awareness of different global and local environmental issues	639.43	14.52	159.86
2	Apathy towards environmental problems	590.86	22.33	147.72
3	Consciousness of Significance of Environmental Education	691.67	2.14	138.33
4	Realization of need for Management of Natural resources	658.2	0.04	98.73
5	Mindfulness of necessity for Wild Life Protection	606.67	0.08	91

The findings of Tables 6, 7 and 8 reveal that the three top ranking aspects of environmental sensitivity for the Students from Mumbai and Vasai are: 'Awareness of different global and local environmental issues', 'Apathy towards environmental problems' and 'Consciousness of Significance of Environmental Education.' The Tables indicate that the students do not have adequate Realization of need for Management of Natural resources as well as Mindfulness of necessity for Wild Life Protection.

CONCLUSION: The study reveals that neither Gender nor Location determine the environmental sensitivity of the secondary level students. Moreover, it is seen that in both the Urban city of Mumbai and fringe region of Vasai, there is high level of sensitivity towards global and local environmental issues and

problems. The students are well aware of the problems but display a high level of indifference and apathy towards the environmental problems. Students agree that environmental education can play a crucial role in gaining knowledge and bring a change in the attitude of the students towards environmental care.

Teachers can play a crucial role in enlightening the students and create a greater sensitivity and apathy towards the environment. This will need the teachers themselves to be sensitised through appropriate training programs. Environmental education cannot be carried out within the four walls of the classrooms and should include excursions, case studies and extensive reading. The present curriculum needs to be revised and enriched to create an interest and apathy towards the environment.

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IMPLEMENTATION OF SUSTAINABLE DEVELOPMENT GOALS IN INDIA: AN ENVIRONMENTAL PERSPECTIVE

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ABSTRACT

The Sustainable Development Goals (SDGs), also known as the Global Goals, were adopted by all members of the UN in 2015 as a universal for the eradication of the poverty, protecting the earth and ensuring everyone enjoys a peace and prosperity by the year 2030. The transformative and bold agenda laid by SDGs needs a collaborative and robust actions at all the level i.e. national and sub national, at macro (policy), meso (institutional) and micro (local) levels, for putting the people for next 15 years on the resilient path. With the implementation of sustainable development goals a lot can benefit the environmental issues. In terms of industrialization and urbanization, the environment is facing several problems with respect to pollution and resource degradation. Such problems can be solved by effective implementation of sustainable goals. With the aim of fulfilling the objective of SDGs, it is important to have a partnership with all the state governments. Many functions of the SDGs are in the State or Concurrent list of the VII Schedule of the Constitution shows the first responsibility is of state governments to achieve the SDGs. Therefore, the State governments are important stakeholders in SDGs. This is because of the demographical and geographical diversity in India and disparities in gender, economic and social aspects that are unique. The paper will suggest the role which the policy makers will play in building a framework for creating means of sustainable energy in future.

Keywords: Sustainable development, poverty, health, economic development, human development.

1. Introduction

As per document of UN on SDGs “Transforming Our World: The 2030 Agenda for Sustainable Development”, has given the total 17 goals and 169 targets. Those targets and goals are indivisible, universal and integrated for development. Even the national governments are not bound legally for implementing the SDGs, but they are expected to take the ownership and integrate SDGs with their national policy framework for getting the expected goals by 2030. The scheme mapping and preparation of the programmes has been done by the Ministries and Departments in governments of central and state, but there is not implementation of SDG policies prepared at district level governments. Global climate change has over the years led to various weather related disasters such as food and drugs which have caused lack of agricultural production and productivity. Due to this there is a lot of food shortage and humans have also increased all over the world. Agriculture suffers from environmental problems but at the same time degradation also contributes to pollution,

overgrazing and releasing of the various greenhouse gases.

Rural development is getting painful attention from environmental degradation in India. Today the majority of the population is living in rural areas. All are directly or indirectly depending on agriculture and farming activities. Day-by-day environmental degradation is rising and this is leading to low agricultural production and productivity.

2. Literature Review

The term “sustainability” has various definitions. Some have defined it as a relation of human beings' ability for preserving the natural resources that are available in nature and not to overuse those resources such that it would be deficient in the upcoming future; while some others have defined it in relation while making the policy. The UN Commission on Economic Development definition which was given in the year 1987 in Brundtland report is seen as the definition that is accepted generally, which was in report that was titled “Our Common Future”, sustainability is defined as that which “meets the

needs of the present without compromising the ability of the future generations to meet their own goals”^[1]. But, few writers stated that this definition is problematic^{[2][3][4]}, while many stated that this definition meets various aspects of sustainability^{[5][6]}. Attempts were made to implement the recent technology in demarcating the land use and land administration type in the nation ^{[7][8]}. Those both systems that were developed by 2 separate groups independently but both show various similarities. A highlight on their work is given below. The emphasis was on Land Productivity. Kostrowicky (1972) has mentioned briefly about Land productivity and related variables to the land to ensure sustainability. The presence of these might improve agricultural practices^[9]. The major tool for the alleviation of poverty by asset redistribution policy was land reforms^[10], land reforms enhance the efficiency in the production by small-farm efficiency and tenant efficiency^[11], agricultural growth, and agricultural capital formation^[12].

3. Objectives Of The Paper

As the problem of environmental security is in question, it is necessary to think rationally about what are the sustainable ways to preserve the environment. With this the main objective of the paper is to study the implementation of sustainable goals in India with reference to managing the environment in a sustainable manner.

4. Implementation Of Sustainable Goals In India For Environment Management

It is needed to reframe the 21st century economic growth agenda for ensuring the cleaner production as well as consumption process- goal 12 of the UN SDGs- Go hand in hand for dignified sustainable living for everyone^[13]. The pandemic impact has made the basic need of the well-being of everyone more clear. One of the top needed things is water, human health and energy and they are connected to the SDGs. Almost around 50% of the world population don't have proper access to the basic needs for dignified life, the most deprived are in Africa, South Asia and East Asia.

The ongoing decade 2021-2030 would be a landmark for various reasons, as in this time globally politically-fragmented order has to deliver total 17 interconnected SDGs, where no people or region will be excluded — and in the year 2005, all the leaders in the world have made a collective political promise^[14]. The aim of all these international frameworks is a collective shift of global policy priorities for SDGs action path by 2030^[15]. The year 2020 would be remembered in history for various reason such as COVID-19 pandemic, UN's inception 75th anniversary, the 30th anniversary of international climate negotiations launch, and was also year when it was set that the emissions of the carbon dioxide growth should start declining by global climate action (SDG 13)^[16].

Skillful diplomacy, which is conducted by non-violent ways, dialogue and negotiation, the use of soft power, may influence international decisions by cooperation. The main instruments for the Climate diplomacy and sustainable development diplomacy are multilevel governance architecture and international cooperation that leads to the building of trust. At the Stockholm Conference in 1972, the international climate discussions (this was the 1st global meeting for building environmental diplomacy) to the annual Conference of Parties. For multilateral actions and pushed cooperation, India has been aligned with global aspirations, in order to build the trust globally^[17-18].

- Creation of task groups to formulate the mechanisms to initiate proxy analysis where the information with respect to the targets is not accessible.
 - Develop and regulate checking instrument for occasional audits
 - Guarantee legitimate designation of assets to distinguished plans identified with SDGs
 - Including subject specialists, academicians, social network at all levels
- Revisiting mapping of schemes / programmes with respect to goals
- To finalise the indicators and data monitoring mechanism, the workshop is conducted for the stakeholders.
 - To Identify the data gaps

- To find the Data requirement
- To understand the data flow mechanism
- To identify sources of data of SDG indicators
- To process the Data
- To analysis the Data
- To deciding the monitoring mechanism
- To decide the aggregation and disaggregation level of every department
- To decide the nodal officers of concerned departments at both the State level as well as Sub-State level
- To conduct the workshops for SGDs for Sensitizing higher officials, field functionaries such as district statistical officers.
- To groups the targets and goals, as per theme and expert groups that will be formed by NITI Aayog with the consultation of CSO and DES.
- To Minimize the administrative structure for monitoring SDGs be recommended by CSO, to all States
- With reference to Goal no.17, the proper financial and other resources should be given for strengthening the statistical capacity in the State.
- State governments plays the dual role of making policy and implementing it. Therefore, state government are placed for linking the SDGs to the needs and priorities of the region and local communities. The reason behind the localising the process is building a robust institutional structure to make a plan, budget, implement and monitor SDGs. This involves
- To identify of a nodal department in order to co-ordinate with the work on SDGs;
- To set up the mechanisms for convergence of all the stakeholder and departments in planning at different level such as Panchayat, Block & district levels;
- To sensitise and capacity building of the bureaucracy and to elect representatives at different levels such asstate, district and grassroots about the Vision 2030;
- To align the process of plan, decision making and budgeting with SDGs;
- To develop the action plan at departmental level with both short as well as medium term targets for achieving the SDGs within the time bound;
- To analyses the adequacy of the current interventions, to identify the important gaps & devising suitable interventions;
- To develops State Indicator framework in order to monitor the progress, identify thesources of data & nodal officials to collect and manage the data
- Access population, agriculture, industry, household activities and governmental projects, day by day are increasing the forest degradation. Due to all these reasons agricultural production has declined. At the same time irrigation projects are also not working properly. Farmers are committing suicide. Nowadays there is an issue of global warming all over the world. Rural development is becoming a major economic issue. Particularly after independence, the size of the cities is increasing. Urban infrastructure is increasing. This is directly or indirectly hampering rural development. Government is running different programs for rural development. However, such programs have not been implemented. There are lack of policies, lack of moral values, the role of individuals are not known religious factors which are leading to inappropriate rural development. Thus, it can be said that natural factors as well as social economic factors are hampering the rural development of India

5. Efforts Of The State Government

Both state and local governments have taken the effort to implement the SDGs by integrating both local as well as national priorities. Some states and NITI Aayog have taken various initiatives by making policies, but there are various challenges related to planning, processing, implementing and monitoring the SDGs. First at the state government and local government level, the policy process, budget, planning, implementation

and monitoring is not clearly reflected. Next the devolution of 3Fs i.e. Funds, Functions and functionaries is still a distant dream for various local and state governments. Therefore, the local government both in urban as well as rural areas are unable to prepare the people's plan and budget for their local area by people's participation. Being a nodal agency, the NITI Aayog has not taken any serious efforts to monitor the SDGs implementation and 3Fs at the national level, state level and local levels. Further, various states are not prepared for implementing the SDGs at their state level. Very few efforts are taken for redesigning the policies, decentralisation of process and enhancing the budgetary provision as per local felt needs.

Next, an improper effort has been taken for addressing the various challenges and issues to increase the mobilization of domestic resources. Also the union budget expenditure share out of GDP has also fallen down to 13.2% in 2019-20 from 13.3% in 2014-15. The poor capacity for mobilizing the financial resources by the central government will decrease the quantum of public spending on economic services and social services at both state level and local level governments due to both state and local government mainly dependent on transfer from the central government. Also the development policy and budget head of both central and state governments has not fully integrated with the SDGs. Next, it is seen that there has been inadequacy in unit cost of services like old pension schemes, housing scheme, pension schemes to widow and disability person, Mid-day meal, Supplementary Nutrition Programme, Scholarship for minorities for Pre Matric and Post Matric, honorarium to frontline service provider such as healthcare workers, workers and cooks in Anganwadi, school teachers, etc^[19]. All this results in low quality of service by various flagship programs and public institutions.

Further also the flow of funds from central government to State Government and local government is also not in proper time, there is delay. The weakness in capacity of the institution like Panchayat Raj, Municipal Corporations, line department result to poor fund absorption, poor implementation and planning of schemes and

various programmes, inadequacy of human resources. Various line departments in the country are not given sufficient human resources that is they are understaffed, also the same situation is there in Gram Panchayat, District Panchayat and block panchayat. All these issues result in poor implementation of the planning process and weaken the implementing and monitoring of SDGs. Further the next major challenge for the SDGs is to monitor its outcome, this is because of lack of poor preparation of development indicators at all the levels. Also the reporting of the data is not done regularly and there is poor capacity of data preparation at Gram Panchayats, District Panchayat and block panchayat. It's also necessary for enhancing the financial resources for having the better unit cost of services and adequate payments to the staffs that are involved in social and economic sectors. The top priority should be given to the adequacy of staff and their training in order to implement the SDGs better. The monitoring indicators and database on SDGs should be developed at state and local level. NITI Aayog should engage in a research organisation with a planning department with all the states, district and block levels for implementing and monitoring the SDGs^[20].

6. The Way Forward

In developing countries there are huge numbers of informal sectors and a big burden of poverty. The success of India is rising rapidly by keeping the per capita emissions low even though there is a huge population is potential model for replication for this developing world.

India could share various practices by its developmental and economic diplomacy in the SDG. Its developmental model — a combination of economic actors and institutions, government funding, market links, foreign direct investment, multilateral funding and private investment — is much like the ones followed in many rapidly-increasing South Asian and African countries^[21], making its experiences more valuable. The societal practices and technical know-how must be shared by India which has enabled the country to remain a low-carbon country^[22].

7. Conclusion

After the Covid-19 pandemic, India must leverage their experiences with achieving growth to show the developing and other countries^[23]. There are 5 tasks of implementation. First task is to raise the financial resources because the country is experiencing insufficient financial resources and hence it is necessary that innovative funding solutions should be given priority at the starting phases of SDG implementation. The improvement of statistical data and monitoring mechanisms is the second task. The next 3rd task is to go ahead of the respective political economic interests for

enhancing the cordial Centre-State relations that can strengthen the SDG implementation. The next 4th task is to scale-up the efforts for reaching the minority groups like SC and ST, with other vulnerable parts, mainly those states which fall back. The next 5th task is to strengthen the institutional mechanisms fostering strong monitoring and evaluation systems and accountability. The NITI Aayog will coordinate centrally for all the planning, its implementation and monitoring. Therefore the successful implementation of the SDG should be given importance by strengthening the institutional mechanism.

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IMPACT OF COVID-19 PANDEMIC'S LOCKDOWN ON WORKERS' LIVELIHOOD OF NON-LOGISTIC SECTOR IN BHIWANDI(SPECIAL REFERENCE TO BHIWANDI POWER LOOM INDUSTRY)

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ABSTRACT

As we all know that covid-19 adversely effects on each and every sector of a global economy. Each and every country in the world gets huge loss of human capital as well as economical. From this pandemic many countries still trying to recover loss of human capital as well as economical loss. India too gets huge loss of human capital as well as economical loss due to this pandemic. There is also drastically affection on workforce of our country in terms of loss of jobs, reduction in income, consumption, savings etc. due to longest lockdown of business activities from 23rd March 2020 to 7th June 2020. (First Phase) In this research paper, the Researcher tried to find out the impact of covid-19 on different aspects of workers' life in Bhiwandi's Non logistic industry special reference with Power loom industry such as income, psychological stress, safety measures, health insurance etc. After analysis of collected data, the researcher found that Power loom workers in Bhiwandi lost their income drastically during lockdown period due to covid-19. Out of total surveyed workers 87.70 % workers lost their income drastically. Also 85.10 % workers were under huge psychological stress during lockdown period due to unemployment. Further this research also found that 69.30% workers don't have health insurance policy which is basic instruments for the protection from the diseases especially this pandemic situation.

Key Words: Power Loom, Workers, Bhiwandi, Lockdown, Covid19.

Introduction

Power loom industry is one of the basic industries of Indian economy and is a major part of Indian Textile industry. In 2019, Indian Textile Industry estimated to be around \$108 billion and it was expected that it will reach to \$223 billion by 2021, but due to covid-19 pandemic now this target seems difficult to be achieved. This industry provides second largest employment to the Indian citizens after agriculture sector. It provides employment to 45 million people directly and 60 million people indirectly. Presently this industry accounts for around 14% of total industrial production, which is 4% of GDP and accounts for nearly 11% share of the country's total exports basket. The industry earned \$ 41.4 billion from the exporting of goods in 2014-15. Since removal of exports quota in 2004 exports of textiles and clothing products from India have increased rapidly. India's textile exports for the year 2013-14 were reported at \$40 billion. Bhiwandi became a hub of the Textile industries in the 1930s. The decline of Mumbai's Power loom mills stimulated the growth of the power loom sector in Bhiwandi. Previously it was known as Manchester of India due to existence of

approximately 6 lakhs power looms which is around 33 % of India's power looms. Total turnover of this segment is projected to be around Rs. 10,000 Crore annually. Approximately 15 lakh migrants' workers from Uttar Pradesh, Bihar, Rajasthan and Telangana states. get employment opportunity from Bhiwandi's power loom Industry.

Review Of Literature

1. Amiri Mohammad (2016), "A Study of Problems Being Faced by Small Scale Power Loom Unit Owners of Solapur, India" in this research article initially author identify significance of power loom industry in the Indian economy such as largest contributed in the employment, exports etc. This study mainly covered various problems and issues faced by power loom industry in the solapur such as lack of finance, electricity, inferior and untimely raw materials, degraded technology, marketing problems etc. and in relation with these problems there is some expectations of the power loom unit owners from the government. Author concluded with there is a need to improve technology, need to provide financial support by the government in terms of subsidies, tax benefits, etc. to improve the financial condition of power loom sector.

2. Ashok Mehta Committee (1964): Report of the “Power Loom Enquiry Committee”, Ministry of Commerce and Industry, Government of India, New Delhi, headed by Ashok Mehta was set up to enquire about different issues and the problems of power loom industry. The committee emphasizes for improvement in financial resources to the power loom industry. The committee also recommended various reforms and changes for the improvement of efficiency and productivity of power loom industry. Power loom industry of Bhiwandi started developing fully during era of 80s. Majority of the power looms in Bhiwandi produce grey materials which are used as shirting and dress material later. Cloth produced in Bhiwandi is mainly consumed by Indian market as it is not up to the mark in the international market. Most of the power looms in Bhiwandi is absolute and older, as manufacturer over here prefers low-priced second-hand power looms over new looms.

3. Galab S. and Revathi E. (2009) “Understanding Powerloom Weavers’ suicides in Sircilla” Published in EPW, 21 February 2019, Authors in their research article not only described the working conditions of power loom workers but also tried to explain why the worst socio-economic status of the workers in Sircilla in Karimnagar district of Andhra Pradesh. According to them workers socio – economic status is very worst due to many reasons such as availability of part time work, lack of technology, no skill up gradation, oligopolistic market, fluctuating market conditions. Further authors also explained that most of the workers are under pressure of debt. On an average hired workers family having a debt of between Rs. 30,000/- to Rs.50,000/- while full time workers” is around Rs.3,00,000/-.

4. Jadhav, B. S.; Jadhav, D. S. and Patil, B. B. (2019) “An Analytical Study of the impact of power looms crisis in Ichalkaranji” In this research paper authors mainly covered various problems faced by power loom workers such as lack of electricity, low quality raw materials, inferior technology etc. due to crisis in power loom industry in Ichalkaranji. They begin with great legacy of Ichalkaranji power loom industry in the Maharashtra state of India. The authors further not only attempt to revealed

problems of workers in power loom workers but also furnished a different solution for improving socio-economic conditions of the workers power loom industry in the Ichalkaranji.

5.P Gangurde (2014) “Socio Economic condition of the power loom workers of the Bhiwandi, Thane” He begins with sociological and economical background of power loom workers of Bhiwandi with various reasons for migration of power loom workers. He highlighted the socio-economic situation of workers in the power loom sector of Bhiwandi such as working and health conditions, industrial relations, wage structures, social security and living conditions of etc. further he described that most of the power loom workers having health problems due to addiction of tobacco, gutka and liquor because of long working hours and nature of work.

6. Thakkar N.H. (1949) Author described the socio – economic situation of Textile Industry. Author begin with the history of cotton spinning and weaving industry and its overall growth and progress of the industry during the first and second world wars. Authors found that there is no improvement in socio – economic status of workers in this industry during the span of 25 -30 years of war duration.

Objectives Of The Study

1. To examine the impact on Income of Power Loomworkers due to lockdown period during Covid -19 pandemic.
2. To seek psychological stress Power loom workers during lockdown period due to covid-19 pandemic.
3. To find that how many power loom workers having protection of health insurance policy.

Hypotheses

1. H0: There is a no significant impact on Income of Power Loom workers due to lockdown period during Covid -19 pandemic.
2. H1: There is a significant impact on Income of Power Loom workers due to lockdown period during Covid -19 pandemic.

Research Methodology

1. Survey method used for collection of data- Primary Data collected by preparing questionnaire.
2. Research Based on a survey which conducted online as well as telephonic enquiry.
3. Survey conducted of Power loom workers in Bhiwandi city of Thane District in Maharashtra.

4. Data Analysis in Simple Percentage Method.
5. No. of Workers responded –114

Data Analysis And Interpretation Of Finding:

Following table Analysis of collected responses in percentage (Total Responses =114)

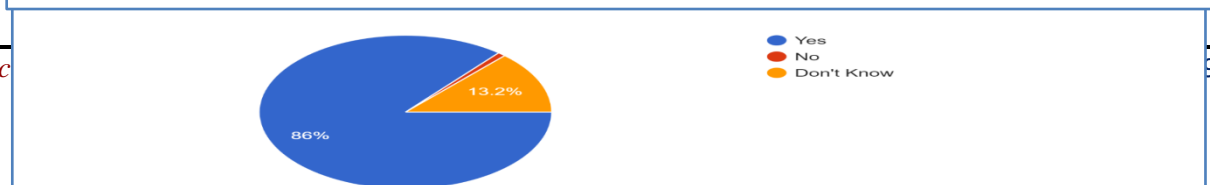
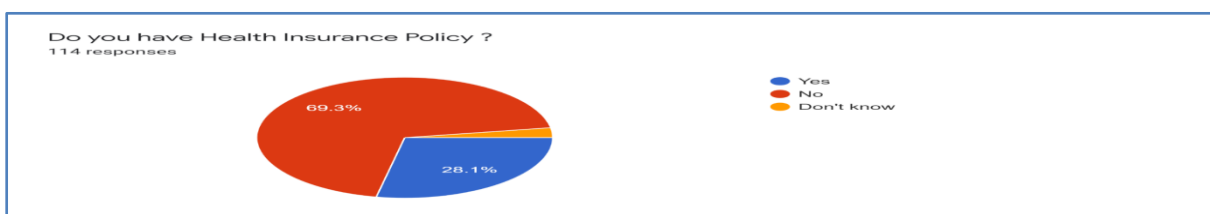
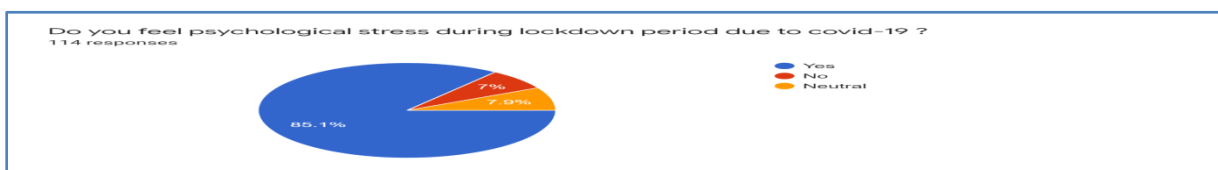
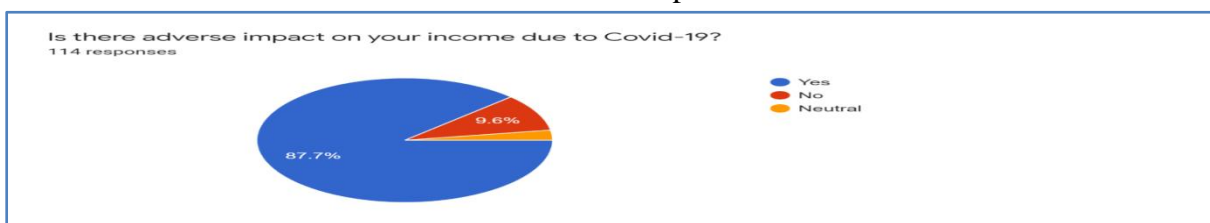
Sr. No	Questions	Yes	No	Neutral / Don't know
1	Is there adverse impact on your income due to covid-19	87.70%	9.60%	2.60%
2	Do you feel psychological stress during lockdown period due to covid-19	85.10%	7.0%	7.9%
3	Do you have health insurance policy	28.10%	69.30%	2.60%
4	Do you think there will be downward trend in Textile Industry due to the covid-19?	85.0%	0.9%	13.3%

As per the above table 87.7% workers (100 out of 114 surveyed workers) in Bhiwandi Power loom industry has accepted that there is huge adverse impact on their income due to covid-19 lockdown, only 9.60% workers (11 out of 114 surveyed workers) mentioned that they don't have any adverse impact on their income due to lockdown period. Also, 85.10% workers (97 out of 114 surveyed workers) were under psychological stress during lockdown period. Further this survey also found that only

28.10% workers (32 out of 114 workers) having a health insurance policy.

Hypothesis Testing & Interpretation

1. H0: There is a no significant impact on Income of Power Loom workers due to lockdown period during Covid -19 pandemic.
2. H1: There is a significant impact on Income of Power Loom workers due to lockdown period during Covid -19 pandemic.



As per the above data analysis 87.70% of workers in Bhiwandi Power loom industry accepted that there is a huge adverse impact on their income during lockdown period due to covid-19 pandemic, 9.60% workers mentioned there is a no huge impact on their income during lockdown period and 2.60% remained neutral for the same question.

Therefore, on the basis of data analysis H0 is rejected and H1 is accepted.

Conclusion:

1. There is a significant adverse impact on income of power loom workers in Bhiwandi during lockdown period due to covid -19 pandemic.
2. Workers in Bhiwandi power loom industry were under tremendous psychological stress during lockdown period due to covid-19.
3. Majority Workers don't have health insurance policy which is all times basic need.
4. Most of the power loom workers feel that there will be downtrend in the power loom industry due to covid 19 pandemic.

Suggetions

1. Government must provide incentive package to revival of power loom industry in Bhiwandi because millions of people still heavily depend on this industry.
2. There should be direct monetary assistant to the workers in Bhiwandi power loom industry to complete their basic needs.
3. To face future health issues government should provide integrated health insurance policy to workers in Power loom Industry.

Limitations Of The Study

1. This study is confined only to Bhiwandi power loom industry, So the findings are applicable only to the study area.
2. Workers in other industries like match, fireworks, printing, lamination, poly bag works, Bidi and agriculture is outside the scope of this study.
3. The workers working in the administrative section of the same industry have been excluded.
4. This study is only a partial study from which no comparative study and generalization can be made further.

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GOLDEN RECTANGLE, GOLDEN SPIRAL, GOLDEN ANGLE AND ITS APPLICATIONS.

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ABSTRACT

This research paper deals with the mathematical concept of Golden Rectangle, Golden Spiral and Golden Angle. From so many centuries these concepts are used to draw arts or in architecture to build different pyramids etc. The deliberations during this research write-up show the way Golden Rectangle Golden Spiral and Golden angle are alive within the world. Fibonacci numbers appear in nature then Golden Rectangle, Golden Spiral and Golden Angle. This study gives the construction of Golden Rectangle, Golden Spiral and Golden Angle many natural objects reflect the Golden rectangle and golden spiral. In this research paper some examples are given to show the applications of golden rectangle, Golden spiral and golden angle. This paper discusses the concepts Golden Rectangle, Golden Spiral and Golden Angle and their applications. Further we present the existence of these Golden rectangle in Human body.

Keywords: Golden Rectangle, Golden ratio, Golden angle, Golden Spiral, self-similarity, phyllotaxis.

Objectives of the study

1. To understand the concept of the Golden Rectangle in nature.
2. To understand the concept of the Golden Spiral in nature.
3. To understand the concept of Golden Angle in nature.

Research Methodology

I have used secondary data for this research paper. Data is taken from various journals, websites, articles, and media reports.

Introduction

The sequence, (1, 1, 2, 3, 5, 8, 13 ...) is Fibonacci's sequence, all numbers of this sequence are called as Fibonacci numbers, except first number if we divide each number by the amount before it, we'll get the sequence : $1/1 = 1$, $2/1 = 2$, $3/2 = 1.5$, $5/3 = 1.666...$, $8/5 = 1.6$, $13/8 = 1.625$, $21/13 = 1.61538....$. The ratio converges to a specific value approximately 1.618, which we call the golden number or the golden ratio. it's a worth correct up to five decimal places is 1.61803. Fibonacci numbers appear in so many objects in the nature like Pineapple, Sunflower, Banana, etc. Spiral pattern is also found in Spiral Galaxy, Sunflower. Numerous mathematical or physical scientists are performing on Golden Rectangle, Golden Spiral, and Golden Angle but their common occurrence in nature is yet to be discovered. Recently, scientists have

successfully produced Fibonacci spiral patterns within the lab and located that an elastically mismatched bi-layer structure may cause stress patterns that produce to Fibonacci spirals. the invention may explain the widespread existence of the pattern in plants. [1]

Need of the study

The researcher has drafted this research paper meaning to throw light on the existence of the Golden Rectangle, Golden Spiral, and Golden angle in nature.

Literature review

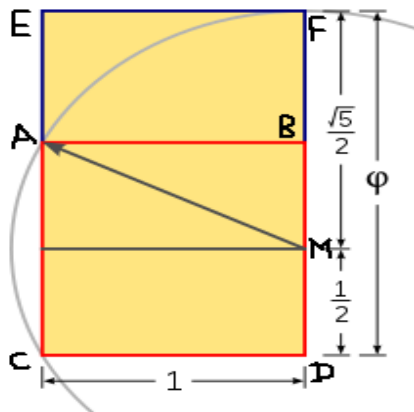
Golden Rectangle

A golden rectangle may be a rectangle whose sides are within the golden ratio is mentioned as a golden rectangle. If the peak of the rectangle is x, the length of the rectangle is y and if the ratio $(x/y) = \phi = 1.618$, then this rectangle is named Golden Rectangle. [2] Edges of the any golden rectangle follows the golden rectangle property i.e., its ratio will be golden ratio. After cutting a square from our actual golden rectangle we will get another golden rectangle which is additionally a Golden rectangle, or if we add a square adequate to the length of the longest side of the rectangle, we get another Golden Rectangle. If we continue this process we'll get infinite smaller and smaller Golden rectangles.[3] Self-similarity

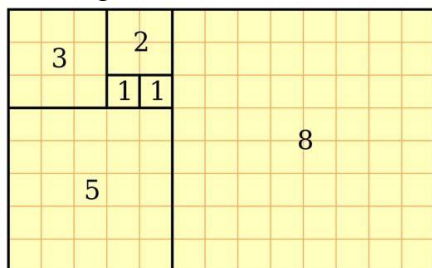
property of object is the property of object that looks equivalent in the least scales. Here golden rectangle follows this Self- similarity property.

Construction of Golden Rectangle:

First, we draw a simple square ABDC of length 1, then let M be midpoint of line BD, now we join the corner point A and midpoint M, after this from midpoint M we draw a arc which is passing through point A that defines the height of the rectangle, if we complete the rectangle CEFD, we get a golden rectangle.



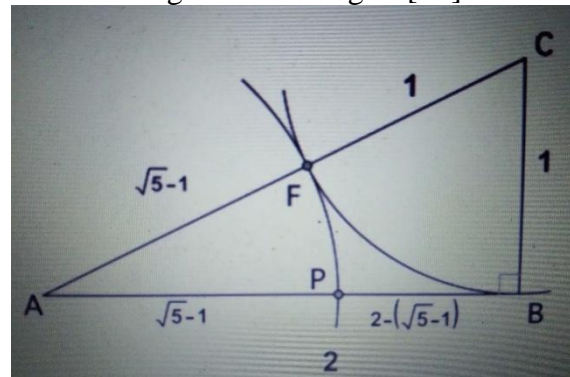
In the golden rectangle CEFD there is one square section ABDC and one rectangle section ABFE, out of this two sections if we remove square section ABFE then remaining rectangular section ABFE is also a golden rectangle and it is also follows the same properties of golden rectangle, also if we add new square whose length is equal to DF then whatever rectangle we will get it will also a golden rectangle and if we continuous this proses infinite time then we will get infinite golden rectangles.[4]



There are so many methods to construct the golden rectangles, if we construct a right-angled triangle ABC with length of side BC is one unit, length of AB is 2 unit then by Pythagorean theorem Length of AC= $l(AC) = \sqrt{5}$. Now we will draw a circular arc which will cut the line segment AC at point F at point C with radius then $l(AF) = \sqrt{5}-1$. Also by considering AF as radius we draw a

circular arc which will cut the line AB at point P then $l(AP) = \sqrt{5}-1$, $l(BP) = 2-(\sqrt{5}-1) = 3-(\sqrt{5})$.

Then the ratio correct up to 5 decimal places is $AP/BP = 1.61803$ which is a golden ratio. If we draw parallel to line segment BC at point P and at point A and also parallels to line segment AB at point C we get a golden rectangle, there are numerous methods to construct the golden rectangle. [4*]



Golden Rectangle in Human Body:

Most Human body parts contains Fibonacci numbers one two, three, and five. Human beings have 2 feet,5 fingers,5 toes,2 eyes,1 nose,2 knees, every finger has 3 separate parts 2. If we measure length of parts of arm and calculate ratio, then this ratio is approximately equal to golden ratio. i.e., Golden rectangle is found in different parts of arm. If we measure the length of face and height of face then this ratio is in golden proportion so we can say that Golden rectangle is there in between length of face and height of face. If we measure the length of mouth and height of mouth then this ratio is in golden proportion so we can say that Golden rectangle is there in between length of mouth and height of mouth. If we measure the wideness of nose and length of hole of nose then this ratio is in golden proportion so we can say that Golden rectangle is there in between wideness of nose and length of hole of nose. The ratio from the forearm to hands is in golden rectangular form. Human fingers have three sections. The proportion of the first two to the full length of the finger gives the golden rectangle. We can also see that the proportion of the middle finger to the little finger is also a golden rectangle. Golden rectangle found in between the total width of the two front teeth in the upper jaw. Golden rectangle found in between Hairline to Eyebrow top and Hairline

to Eye bottom, Golden rectangle found in between Eyebrow top to Eyebrow bottom and Eye top to Eye bottom. If we turn our finger shown in figure no 7 there also, we can see the golden rectangle.

Golden Spiral:

If you draw a spiral over each square, starting in one corner and ending within the other one called Golden Spiral [5]. In Golden Spiral length and radius increases proportionally, therefore the particular shape of the spiral is remains the same. Golden Spiral is also called as equiangular spiral because its curve intersects each radius vector from the center of the spiral at the same constant angle. The golden spiral, found in pinecones, flower seed heads, and pineapples, are often found in countless other places in nature also.

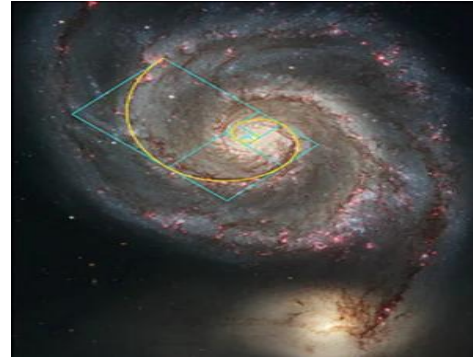
The spiral form within a galaxy conforms to a golden spiral also, as does the spiraling shape of a storm (Garland, 1987, pp. 30-31) [7].



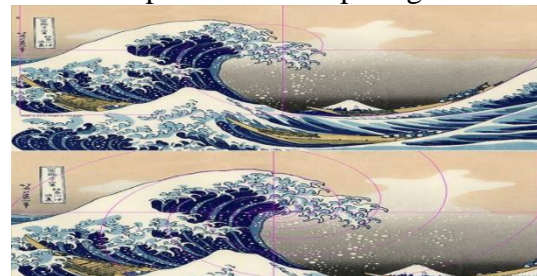
Golden Spiral found in ocean waves.(Photo: irabel8/Shutterstock)



Golden Spiral found in flower. (Photo: Romantsova Olga/Shutterstock)



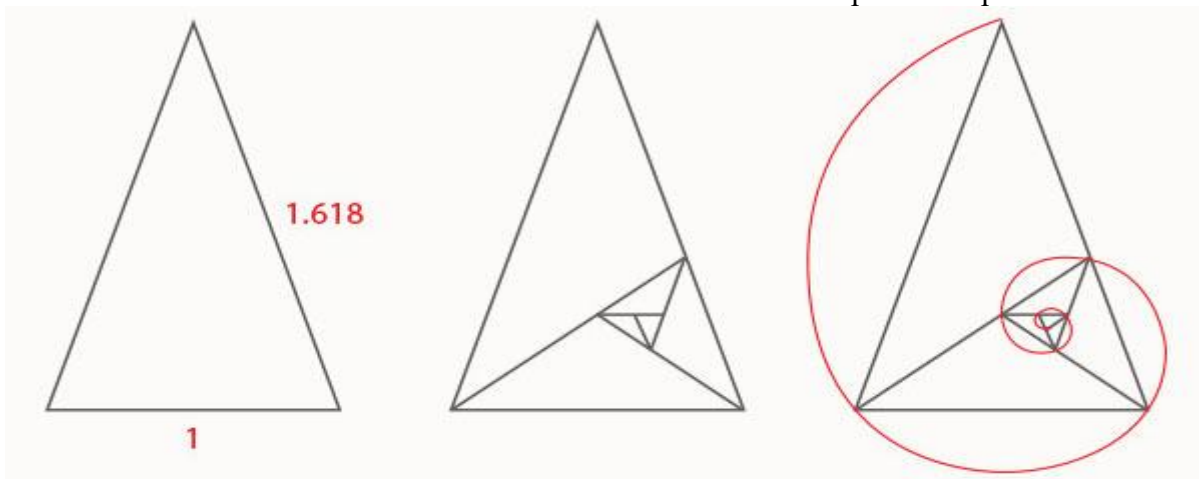
Golden Spiral found in spiral galaxies.



Fibonacci spiral is found in the Great wave art drawn by Katsushika Hokusai

Golden Triangle

If we consider triangle whose two sides are equal and its length 1.618 and one smaller side whose length is one unit then this is a golden triangle. If these isosceles triangles are nested inside one another, it creates the same “Golden Spiral” shape.



Golden Angle

In geometry, if we divide the circumference of a circle into two parts, one arc is small and other is big arc in such a way that its ratio is golden ratio, then whatever angle we get is called golden angle. Generally the value of smaller angle corrects up to two decimal places is 137.50° and bigger angle is $(360^\circ - 137.50^\circ = 222.50^\circ)$. Basically, this golden angle is found in leaf arrangement (phyllotaxis) in some plants. In 1830s one result is discovered in that they found that new leaf is positioned at 137.5 degree.

Algebraically, if the length of the longer arc of the circle is x and thus the length of a smaller arc of a circle is y and $x+y$ be 360° , $(x+y)/x = x/y$. If we take ratio of x/y and ratio of $(x+y)/x$ then we can see that this ratio satisfies $(x+y)/x = x/y$. Here the smaller angle is approximately $137.507764050037854646 \dots$ is the golden angle. This angle is found in sunflower leaf arrangement, mango tree leaf arrangement, pineapple leaf arrangement and so many other tree's leaf arrangements. In Phyllotaxis study golden angle plays important role; as an example, the golden angle is that the angle separating the florets on a sunflower [8]. In 1979 Helmut Vogel discovered an easy mathematical description of the geometry of edible seed patterns using polar coordinates (r, θ) , it's $r(n) = \sqrt{n}$ and $\theta(n) = n\phi$ where $\phi \approx 137.50^\circ$ is that the golden angle. [9] Let x be the length of an arc cut out of a circle by a golden angle and y be the length of its complement. Then by definition, the ratio of y to x is ϕ . In many cases, plant phyllotaxis appears to follow a Fibonacci series ordered construction.

In (1571-1630) Astronomer Kepler have written on the subject of golden angle about connection between the Fibonacci numbers and leaf arrangements. In 1837 Auguste, a crystallographer, and Louis, a botanist Bravais Brothers discovered that a replacement leaf generally advances by the same angle 137.50° from the previous leaf.

To provide the balance of the plant new leaf is on the opposite side of the stem from the older leaf. If we rename the leaf as leaf 0 and leaf 1 ..., then leaf 0 is exactly below the leaf 2, leaf 3 will be directly above the leaf 1 and so on... this arrangement is protecting the leaves from sun and rain this arrangement of leaf blocking the leaves from sun and moisture, from this argument we can say that divergence angle of $360^\circ/n$ is again periodic it'll also not be optimal.

Conclusion And Evaluation:

Golden Rectangles are present throughout the planet during which we live, and therefore the patterns which may be formed from them both astonish and perplex the mind. The Golden Spiral is gorgeous to review. Such intricate Golden spiral patterns couldn't have evolved by mere chance, but are the work of a God of order, who created all. During this research paper, we've discussed the development of the Golden Rectangle, Information about the Golden rectangle, and where we will see it within the physical body, Concept of the Golden triangle. Also, we have discussed algebraic and geometric representation of Golden angle the way Golden Rectangle Golden Spiral and Golden angle are alive within the world. When we observe nature then so many objects are there in which we can observe the golden rectangle like human body, face animal faces in diffract plants, Golden angle is found in so many plants in the nature and golden spiral is there in Ocean Wave, Spiral galaxies, in flower. In this research paper, we've discussed the development of the Golden Rectangle, Information about the Golden rectangle, and where we will see it within the physical body, Concept of the Golden triangle. Also, we have discussed algebraic and geometric representation of Golden angle the way Golden Rectangle Golden Spiral and Golden angle are alive within the world.

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EFFECT OF COVID -19 ON THE USAGE OF SOCIAL MEDIA FOR E-COMMERCIAL ACTIVITIES FROM THE PERSPECTIVE OF BUYERS AND SELLERS

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ABSTRACT

The advancements in technology and innovation have caused tremendous changes in society. The need for globalization and liberation of the economy has increased the usage of digital space technologies for communication. Social media usage in the digital space has been sought after, as the result of this evolution concerning new technologies. The advent of the COVID-19 pandemic in India resulted in the enhanced usage of social media due to restrictions of physical movements which led to many small businesses making use of social media for e-commerce. The main objective of this paper is to establish the usage of Instagram as a social media platform for e-commerce activities during the Covid-19 pandemic and demonstration from the perspective of buyers and sellers will be the point of departure. Using 'uses and gratification theory' as an explanatory basis, this study attempts to demonstrate and explicate the use of social media by individuals to gratify their specific needs and wants. To find the answers to the research questions on social media, commercial activities and usage of Instagram as a social media platform for e-commerce activities, and to test the hypothesis a research tool was designed and developed, after validation and pilot study. The research tool was administered over 3 months during the period of the COVID-19 pandemic to (n=108) e-commerce users to gather the data after informed consent. The data gathered was analysed using SPSS (version -19). The descriptive analysis and inferential analysis of the data depicted that there was a significant gender difference ('p'-value =.022) in the usage of e-commerce from the perspective of buyers and sellers. It was found that the majority (26.85%) possessed a high level of awareness of the usage of Instagram as a social media platform for e-commerce activities. Besides, during the COVID-19 pandemic period, most (96.29%) of Instagram users were aware of the usage of Instagram as a social media for e-commercial activities.

Key Words: E-commerce, Social Justice, Gender Roles, Social Media, Instagram, Covid-19

Introduction

Social media (e.g. Twitter, Facebook, Instagram and LinkedIn) have been described by Clark and others in their research study as a group of internet-based applications that is built on the ideological and technological foundations of Web 2.0. According to them, social media also permit the design, development and exchange of user-generated content (Clark et al., 2018; Kaplan and Haenlein, 2010). It has been observed that many people across the globe use different social media sites as a generic mode of digital communication to generate as well as exchange information in the digital space. As the use of social media among social groups and individuals has increased significantly in recent years, understanding the factors that influence individuals' intentions to use or reject social media has become a topic of continuing interest for many researchers. Social media used for a number of reasons. It has become an important part of our lives because it

contributes in increasing the number of contacts and friendships among users sharing some of the common interests (Dhananjaya et al. 2015). Correa et al. (2010) describes social media as a mechanism or tool for the audience to connect, communicate, and interact with each other and their mutual friends through instant messaging or social networking sites in a continuous manner.

Instagram which came into the focus of attention in 2010 as a mobile photo and video-sharing application; due to its enhanced photo-editing features, Instagram users can take, edit and instantly upload quality images of their choice. Instagram use is characterized by selfies, photographs with hashtags, and several filters that users can apply to post-edit their images as when they require. Additionally, celebrity profiles can also use this platform and contribute to its popularity as glamorous icons share personal photos and videos with their fans (Djafarova and Rushworth, 2017; Lee et al., 2015). In this study, Instagram was selected

for several reasons as it represents a social media tool in the growth, development and early maturity stage of adoption (Statista, 2018). This research paper is an attempt to demonstrate the social media usage for e-commerce in terms of the perspective of Instagram users as buyers and sellers.

Social Media Usage for E-Commerce

The emergence of social media applications has given consumers, communities and organizations greater access to information, social networks and communication mediums. In the view of Sociologist Tonnies (2002), social groups exist to build and sustain personal and direct social ties that connect different individuals who contribute their values and beliefs to form social networks. In the research study by Quinn and Oldmeadow (2013), 'the Martini Effect', it was found that mobile device users had significantly higher levels of belonging and sharing with each other, as compared to non-mobile devices usage by Social Media Network (SMN) users and that this relationship was partially mediated by frequency of use of SMNs but not by face-to-face contact for commercial activities. The need for belonging and affiliation towards society motivated the E-commerce need of the individual to preserve the social connection. People do social networking through various social media, which forms a community and consequently transitions taking place in the users. According to Burko (2010), looking at new (or social) media, it is easy to see that there are some powerful forces driving change across our genders, cultural, social, and even political landscapes.

Theoretical Framework

Performance Theory of gender is one such theory that allows us to understand how these online platforms provide opportunities and choice for individual users to enact gender in performance. If users perform gender online digital platforms, they have opportunities to engage in a traditional gender role behaviours to widely different, gendered behaviours such as gender-bending, and performances between these extremes in online platforms. Now that logging on to social media as a digital media

platform has become a daily activity for so many global citizens; researchers are examining how different genders engage in these online activities in E-commerce platforms, as well as how such engagement impacts equality between the genders. Communication is the essence of marketing and e-commerce. It is fundamental to the existence of human beings. Communication is the act of sharing or exchanging information, ideas, thoughts etc. Communication through digital platforms is an important part of human evolution (Choudhary, Nambir 2016). Communication also plays an important role while performing business activities and it is of utmost importance for communication to be effective. It is effective communication that has enabled people to build organizations and societies (Chauhan P. 2009).

E-Commerce

E-commerce or electronic commerce is buying and selling of goods and services over the World Wide Web (WWW) or the internet. It is the process, whereby customers buy goods and services from a seller in real-time without any intermediary service over the Internet (Upadhyay A, Pathak A, Singh N 2017). It refers to the use of technology to enhance the processing of commercial transactions between companies, their customers and business partners (Verus D'sa, 2020). The evolution of the internet and the emergence of e-commerce have helped many businesses to grow and have revolutionized the experience of shopping. Social networking sites and E-commerce sites have enjoyed a period of immense growth (Clarence Lee and Shirley Fung 2007). E-commerce has created easiness and innovativeness in humans' life (Ahmed Z, Su L, Rafique K, Khan S Z & Jamil S 2017). E-commerce refers specifically to the transaction of goods and services whereas e-business refers to all aspects of operating an online business. Online shopping and E-business gives opportunity to everyone and especially to those who are at remote locations and cannot reach the city to sell their product; they can easily sell their product online ((Upadhyay A, Pathak A, Singh N 2017).

Instagram as a Social Media for E-Commerce

Instagram is a photo and video sharing platform. Users can connect by following each other, sharing posts, comments, messaging etc. It has brought the world closer. People can connect with anyone from around the world. Instagram has become increasingly popular among the young generation and it has been used as one of the platforms by marketers for social media marketing because of the increasing usage by the masses. Initially, social media applications were used for communication and later became a mode of marketing and advertising a company's products and services. Applications like Facebook, Snapchat, Twitter, YouTube, etc. are used. Brands run ad-supported content showcasing their product and services. The recent development of social media has led to a subsequent changes in media consumption patterns, which is pushing influencers, companies and organizations to adopt social media as one of their marketing, communication strategies and public relations tools (Manohar Singh, D, & Singh, G. 2018). In the current scenario, many small-scale and home-based businesses have started operating solely through their social media accounts. Facebook has been long used by businesses to market as well as to solely sell their products and services through Facebook accounts; using it as e-commerce. It has now become common to see small or home-based businesses that operate solely through their Facebook accounts (Manohar Singh, D, & Singh, G. 2018).

Aim

The study aims to establish the usage of Instagram as a social media platform for e-commerce activities during the Covid-19 pandemic and demonstration from the perspectives of buyers and sellers.

Objectives of the Study

1. To establish the significant difference among the e-commerce users in terms of the usage of Instagram as a social media platform.
2. To demonstrate the kind of usages of Instagram as a social media for e-

commerce from the perspective of buyers and sellers.

Hypothesis

1. There is no significant difference among the e-commerce users in terms of usage of Instagram as a social media platform.
2. There are different types of usage of Instagram as a social media platform for e-commerce from the perspective of buyers and sellers.

Research Questions

1. What are the significant difference among the e-commerce users in terms of usage of Instagram as a social media platform?
2. Where are the different types of usage of Instagram as a social media platform for e-commerce from the perspective of buyers and sellers?

Limitations

1. The sample selected for the study consisted 108 e-commerce users above the age of 18 and they were all users of social media and Instagram
2. The research tool was designed and developed in English language after professional and pilot study validation and the same was administered after consent from the participants of the survey based research study.
3. Research tool was administered to the participants of the study from 1st May to 30th June 2021.
4. The research tool was administered to the participants using Instagram and other social media for e-commerce activities.

Research Methodology

So as to find the answers to some of the research questions and to test the hypothesis, the data collected using the research tool, designed and developed for the purpose of the study, was analyzed using SPSS (version -19) in terms of correlations and inferential analysis. The results of the study are indicated with specific reference to e-commerce activities in terms of gender, social media usage and levels of usage from the perspective of buyers and sellers.

Results and Discussions

The data gathered using the research tool with reference to e-commerce usage in terms of gender was analyzed using descriptive

analysis. The results are depicted in Chart No.1 and Table No.1.

Chart no: 1 Classification of E-commerce Users in terms of Gender.

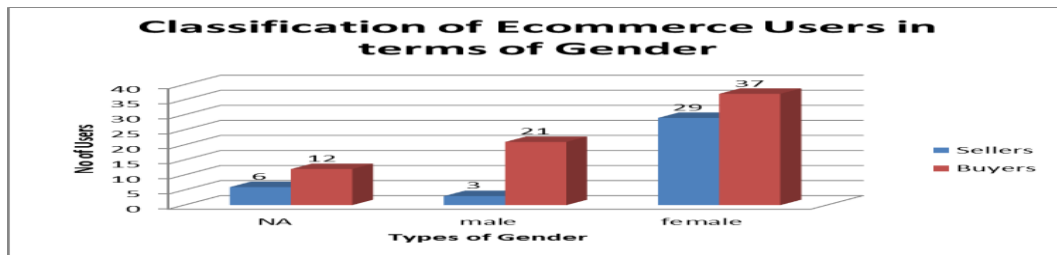


Table no: 1 Classification of E-commerce Users in terms of Gender.

‘p’ – value = .022

In the Table No.1 and Chart No.1 it can be

seen that there is a significant difference between the genders of the E-commerce users as the ‘p’- value is .022. However it is noted that majority (61.11%) of the E-commerce users belong to female gender. This depicts that the female gender exercised their rights to the usage of social media for E-commerce

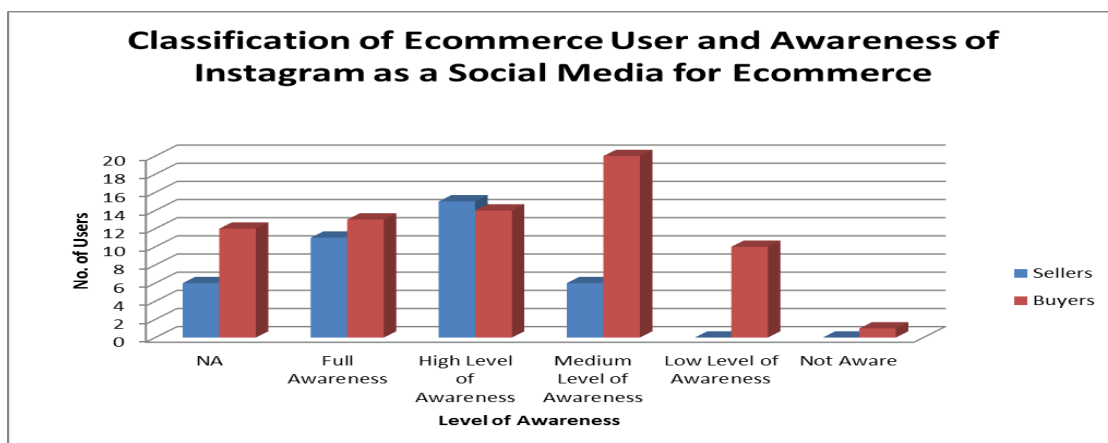
E-commerce User	Gender of User			Total
	NA	male	female	
Seller	6	3	29	38
Buyer	12	21	37	70
Total	18	24	66	108

activities, which is democratic and socially accepted in behaviour, as opined in performance theory by xxx

E-commerce Users

The data gathered using the research tool with reference to e-commerce usage in terms of gender was analyzed using descriptive analysis. The results are depicted in Chart No.1 and Table No.1.

Chart No: 2 Classification of E-commerce User and Awareness of Instagram as a Social Media for E-commerce.



Type of E-commerce User	Awareness of Instagram as Social Media for E-commerce by User						Total
	NA	Full Awareness	High Level of Awareness	Medium Level of Awareness	Low Level of Awareness	Not Aware	
Seller	6	11	15	6	0	0	38

Buyer	12	13	14	20	10	1	70
Total	18	24	29	26	10	1	108

Table No: 2 Classification of E-commerce User and Awareness of Instagram as a Social Media for E-commerce.

‘p’- value = .030

In the table number 2 and chart number 2 it is seen that there is significant difference between the Awareness of Instagram as a Social Media for E-commerce and E-commerce users as the ‘p’- value is .030. However, it can be noted that the users possess full to medium level of awareness and majority (26.85%) possess high

level of awareness of Instagram as a social media for e-commerce.

The usage of Instagram among the e-commerce users i.e. buyers and sellers is homogenous.

The data with reference to the Instagram usage, was classified in terms of e-commerce users among Instagram users. The results are depicted in Chart No.3 & Table No.3.

Chart No: 3 Classification of E-commerce Users in terms of Instagram Usage

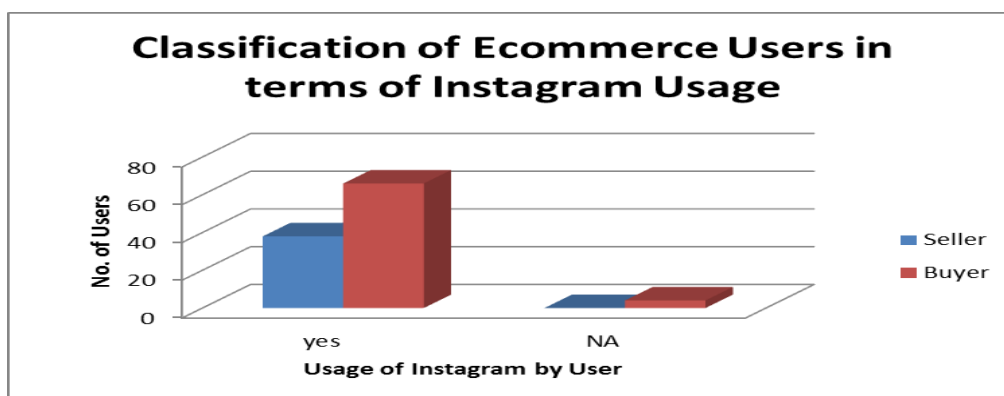


Table No: 3 Classification of E-commerce Users in terms of Instagram Usage.

‘p’- value = .171

In the table number 3 and chart number 3 it may be seen that there is no significant

significant gender difference (‘p’-value =.022) in the usage of e-commerce from the perspective of buyers and sellers. It was found

E-commerce User	Usage of Instagram By User		Total
	Yes	NA	
Seller	38	0	38
Buyer	66	4	70
Total	104	4	108

difference between the Instagram usage of the E-commerce users as the ‘p’- value is .171. It can be noted that usage of Instagram by the E-commerce users is homogenous and majority (96.29%) of the E-commerce users are making use of Instagram for E-commerce.

that the majority (26.85%) possessed high level of awareness of the usage of Instagram as a social media platform for e-commerce activities. Besides, during COVID-19 pandemic period, most (96.29%) of the Instagram users were aware of usage of Instagram as a social media for e-commercial activities.

Conclusion

The descriptive analysis and inferential analysis of the data depicted that there was a

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DOES ONLINE GROCERY CLICK WITH MUMBAI? -A STUDY ON ONLINE GROCERY RETAIL AMONG CONSUMERS IN MUMBAI

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ABSTRACT

With technology at our beck and call, everything from a safety pin to a refrigerator can be delivered at one's doorstep today. The online fashion and electronics markets have matured, but acceptance of Online Grocery Retail is in its nascency. While in theory it is the epitome of convenience that heavy grocery bags will find their way to your home, do consumers really want that? Are they comfortable buying groceries without first inspecting it at the store? After all, how can one purchase rice without first sniffing its aroma or inspecting the length? This research paper aims to understand the awareness and adoption of Online Grocery Retail among consumers in Mumbai, and its association, if any, with demographic variables. Adoption trends have also been analyzed in the light of the Covid-19 pandemic, because of its pronounced impact on this sector. Data was collected from 182 respondents in Mumbai and was analysed using Chi-Square and frequency tests. The results showed that while demographic variables of age and marital status do impact adoption trends, the same does not hold true for gender, occupation and family size. The Covid-19 pandemic has impacted Online Grocery adoption in a favourable way, with a 64 percent increase in adoption from the pre-pandemic days. These findings pave the way for further research, to help retailers chalk out demographic specific as well as retention strategies to hold on to newfound customers, and make ordering groceries online the norm, rather than an exception.

Key Words: Consumers, Covid-19 Pandemic, Demography, Online Grocery

Introduction

With one of the youngest populations, cheapest internet, and highest surplus labour supply in the world, India is a fertile ground for E-Commerce development. As per India Brand Equity Foundation, India will have the second largest e-commerce sector in the world by the year 2034. It is expected to expand to \$99 billion by 2024, from \$30 billion in 2019. More importantly, it is predicted that the main categories fuelling this growth will be grocery and fashion/apparel. The E-Grocery market in India is forecasted to increase from \$1.9 billion in 2019 to a whopping \$18.2 billion by the year 2024.

Therefore, it comes as no surprise that major consolidations and mergers are taking place in this sector, with big players eyeing it from all across the globe- Everyone wants a share of this pie.

Reliance Retail and Amazon Inc are embroiled in a well-publicized legal battle to acquire the assets of Future Group, a major brick-and-mortar retailer, with a budding online grocery delivery service.¹ Meanwhile, Reliance has

already set foot into this sector with much aplomb with Jio Mart, last year.

Further, Tata group has purchased a majority stake (64 percent) in online grocery retailer BigBasket with a \$200 million infusion of capital.²

Food Delivery majors like Zomato and Swiggy are also debuting in the already star-studded e-grocery sector. After a highly impactful IPO debut in July 2021, Zomato has received permission to acquire a 9.3 percent stake in e-grocer Grofers for a whopping \$100 million³. Concurrently, Zomato's rival in the food delivery business Swiggy is testing a "soft launch" of its grocery delivery service Instamart in some metro cities, with further expansion plans. In a move to counter the enviable instant service provided by local kirana shops, Grofers and Swiggy are

¹<https://indianexpress.com/article/explained/explained-tussle-between-future-group-amazon-what-happens-next-6913824/>

²<https://economictimes.indiatimes.com/tech/startups/tata-says-acquired-a-majority-stake-in-online-grocery-bigbasket/articleshow/83029366.cms>

³<https://www.financialexpress.com/industry/sme/zomato-to-invests-over-100-m-in-grofers/2312138/>

launching 15–30-minute deliveries of grocery, an unheard-of feat in the e-commerce sector.⁴

But even so, the online grocery market currently accounts for only 0.3 percent of grocery sales in India. So, there is a huge market potential in this sector. This has been accelerated by the pandemic situation, which naturally had a positive impact on demand for a sector like Online Grocery Retail (OGR). Consumers realized the potential of at-home access to groceries which provided safety as well as convenience during the pandemic.

OGR major BigBasket reported that its daily business doubled in the lockdown, to almost 3,00,000 deliveries daily.⁵ Their number of new customers increased by a whopping 84 percent in the January to July period, as compared to pre-pandemic, along with an improvement in retention rate (50 percent compared to 30-45 percent pre pandemic). They are optimistic and believe that the shift of new customers to e-grocery is here to stay.⁶

So, is OGR really here to stay? Are customers comfortable with having groceries sent to them without first inspecting it at the store, the ever familiar 'touch and feel' approach? After all, how can one purchase a mango without sniffing its aroma, or not inspect the length of long grain rice before purchasing it? Would OGR be accepted in India/Mumbai as the norm? Or it is only good on paper? This research paper aims to understand the awareness and adoption level of OGR in Mumbai, and its correlation with demographic variables.

⁴<https://www.moneycontrol.com/news/business/swigg-y-launches-15-30-minute-grocery-deliveries-expands-instamart-to-5-more-cities-in-india-7311761.html>

⁵<https://economictimes.indiatimes.com/tech/startups/bigbasket-clocks-36-revenue-growth-in-fy20/articleshow/80685323.cms?from=mdr#:~:text=Online%20grocer%20BigBasket%2C%20which%20is,year%20ended%20March%2031%2C%202020.&text=intelligence%20platform%20Tofler,-BigBasket's%20expenses%20rose%20from%20Rs%203%2C365%20crore%20in,Rs%204%2C411%20crore%20in%20FY20.>

⁶<https://www.financialexpress.com/industry/sme/pandemic-bigbasket-records-84-jump-in-new-customers/2072206/>

Literature Review

Blomqvist Anna, et al(2015) delved into the attitude of Swedish customers towards online grocery shopping, using Theory of Planned Behaviour. Its five variables being attitude, subjective norm, perceived behavioural control, intention and behaviour were studied in depth. It showed a strong correlation between positive attitude and online grocery shopping intention.

Budhiraja Himanshu, et al (2016) analyzed the Indian online grocery industry and related customer behaviour in the state of Punjab. His study revealed that the online grocery model is more popular amongst the people in service profession followed by business class and then retired persons. It was also found that the online model is most popular amongst working women, followed by men. The major reason for purchasing groceries online was found to be saving of time and effort.

Chincholkar Snehal (2016) analysed consumer behaviour in relation to 'Localbanya.com', an online grocery retailer. 20 percent respondents preferred online as a grocery purchase medium. 66 percent respondents were satisfied with the user-friendly website and their delivery time. Lack of awareness about online grocery retailers was an area of concern, which can be worked upon by the marketing departments of such retailers.

Dwivedi Rohita, et al(2019) undertook an evaluation of aspects of e-commerce websites by end users, in relation to demographics. The study revealed that demographic factors did not have an impact on consumer behavior towards e-commerce, rather behavioral and such other aspects should be adopted to understand online consumer behaviour.

McKinsey & EuroCommerce (2021) studied the European grocery industry amidst the Covid-19 pandemic and sought to predict the upcoming trends in this sector. They observed that the pandemic turned out to be a jolt on customer loyalty in the grocery sector with almost 60 percent of consumers changing their shopping behaviour—either a different retailer, a different mode of retail or a different brand. Further, they found that 70 percent consumers planned to continue their newfound shopping behaviour. Value and Convenience were seen as the forefront driving factors in their new shopping behaviour. Some of the important

grocery trends forecasted through 2025 were- Online taking centre stage, brick-and mortar stores losing ground and value being king.

Need for the Study

With the onset of the pandemic, many Mumbaikars were forced to explore the option of purchasing their groceries online, often proving to be their first brush with the experience. This research explores the awareness and adoption of OGR amongst them, to help retailers understand how many customers have tried buying groceries online before and during the pandemic, who their new customers are and how likely they are to continue buying online. This information should help inform retailers on strategies to enter and expand the Mumbai OGR market.

Objectives of the Study

- 1) To understand the level of awareness among consumers about OGR
- 2) To examine the demography of customers purchasing groceries online
- 3) To understand the impact of the Covid-19 Pandemic on online grocery purchase trends

Hypothesis

H₀: There is no significant association between demography of the consumers and adoption of OGR.

H₁: There is a significant association between demography of the consumers and adoption of OGR

The demographic variables taken are age, gender, marital status, occupation and family size of the respondents, for which the following sub-hypotheses are considered.

H_{0a}: There is no significant association between age of consumers and adoption of OGR

H_{1a}: There is a significant association between age of consumers and adoption of OGR

H_{0b}: There is no significant association between gender of consumers and adoption of OGR

H_{1b}: There is a significant association between gender of consumers and adoption of OGR

H_{0c}: There is no significant association between the marital status of consumers and adoption of OGR

H_{1c}: There is a significant association between the marital status of consumers and adoption of OGR

H_{0d}: There is no significant association between the occupation of consumers and adoption of OGR

H_{1d}: There is a significant association between the occupation of consumers and adoption of OGR

H_{0e}: There is no significant association between family size of consumers and adoption of OGR

H_{1e}: There is a significant association between family size of consumers and adoption of OGR

Limitations of the Study

The study is limited to Mumbai and the survey was conducted on only 182 respondents.

Research Methodology

Data Collection

Data has been collected via primary as well as secondary sources. Primary data has been collected through a structured questionnaire. Secondary data is collected from various research papers, news articles, market research reports, etc.

Data Analysis

The data is analyzed using statistical tools such as percentage, mean scores, pivot tables and presented using charts and graphs. To test the hypothesis, Chi-Square Test of Independence has been applied, using the SPSS program.

Sample Size

The primary data has been collected from the responses of 182 consumers from Mumbai, using convenience sampling.

Analysis and Interpretation

Table 1: Demographic Profile of Respondents

Sr. No.	Variables	Characteristics	Number of Respondents (N)	Percentage of Respondents
1	Age	18-30	75	41.2
		31-50	69	37.9

Sr. No.	Variables	Characteristics	Number of Respondents (N)	Percentage of Respondents
		51 and above	38	20.9
		Total	182	100.0
2	Gender	Male	75	41.2
		Female	107	58.8
		Total	182	100.0
3	Marital Status	Married	100	54.9
		Unmarried	82	45.1
		Total	182	100.0
4	Occupation	Student	33	18.1
		Salaried	102	56.0
		Self-Employed/Business	24	13.2
		Home Maker	8	4.4
		Retired	15	8.3
		Total	182	100.0
5	Family Size	One	4	2.3
		Two	29	15.9
		Three	41	22.5
		More than three	108	59.3
		Total	182	100.0

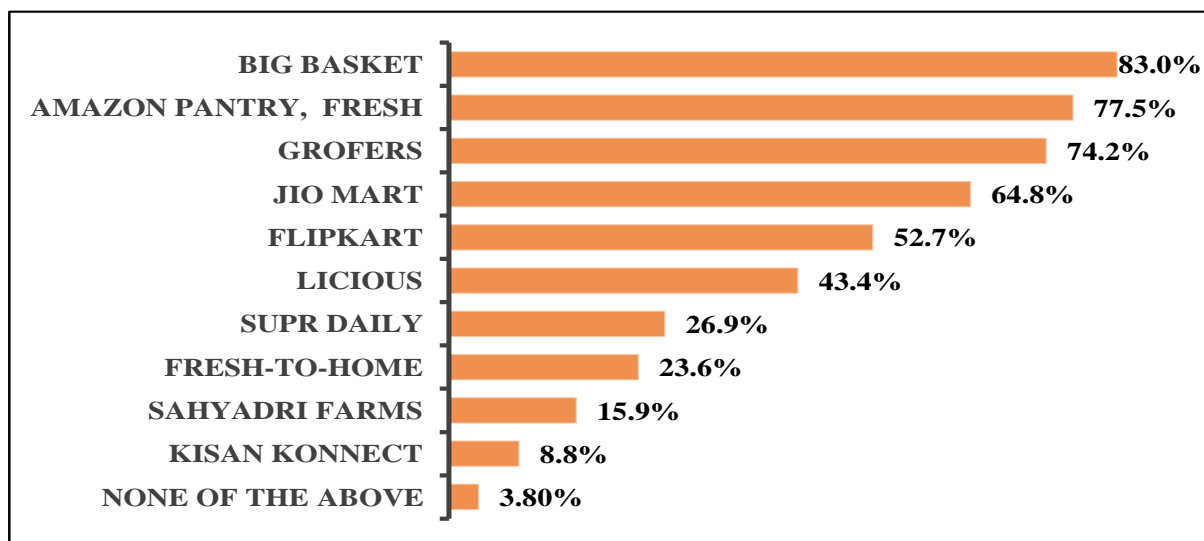
Source: Primary Data

Of the 182 respondents surveyed, 41.2 percent were in the age group of 18 to 30 years, 58.8 percent were female and 54.9 percent were married. Most respondents (56 percent) were salaried, and the most common family size was

more than three, with 59.3 percent of the population belonging to this category.

Respondents were asked about OGR retailers known to them, and the results are depicted in Chart 1.

Chart 1: Level of Awareness about Online Grocery Retailers



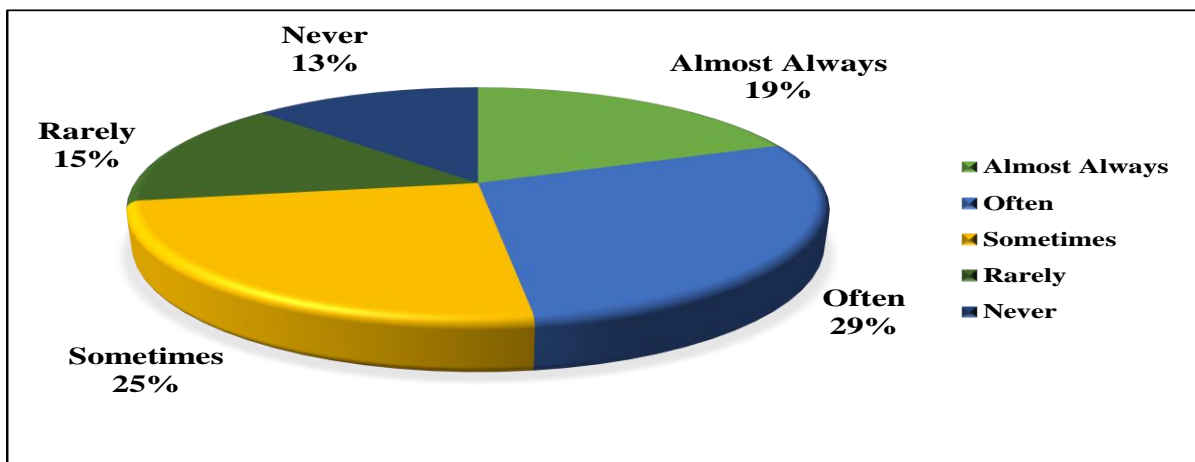
Source: Primary Data

Big Basket was the most recognized retailer with 83 percent of respondents being aware of

it, followed by Amazon and Grofers. Respondents also named OGR retailers they

were aware of, other than those included in the list.

Chart 2: Level of OGR Adoption by Sample Population

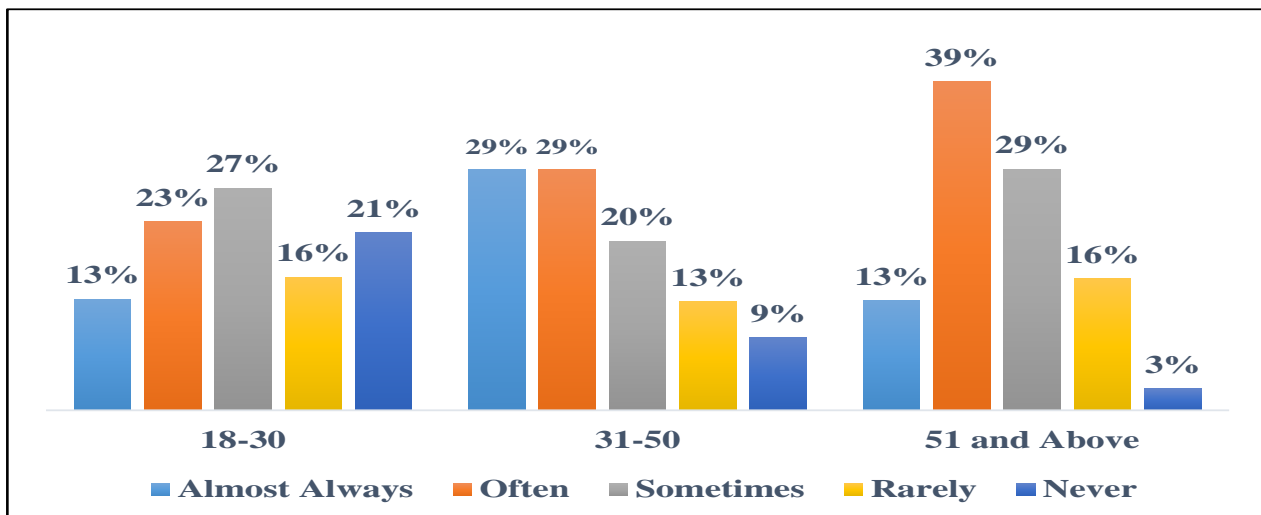


Source: Primary Data

87 percent reported having used OGR on at least one occasion, of which 29 percent reported using OGR often, and 19 percent almost always used OGR.

To understand the association of adoption of OGR with demography, hypothesis testing has been performed.

Chart 3: OGR Adoption based on Age



Source: Primary Data

Chi-Square Test:

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	17.525	8	0.025
Likelihood Ratio	18.026	8	0.021
Linear-by-Linear Association	6.646	1	0.010
N of Valid Cases	182		
Symmetric Measures:			
	Value	Approximate Significance	
Phi	0.310	0.025	
Cramer's V	0.219	0.025	

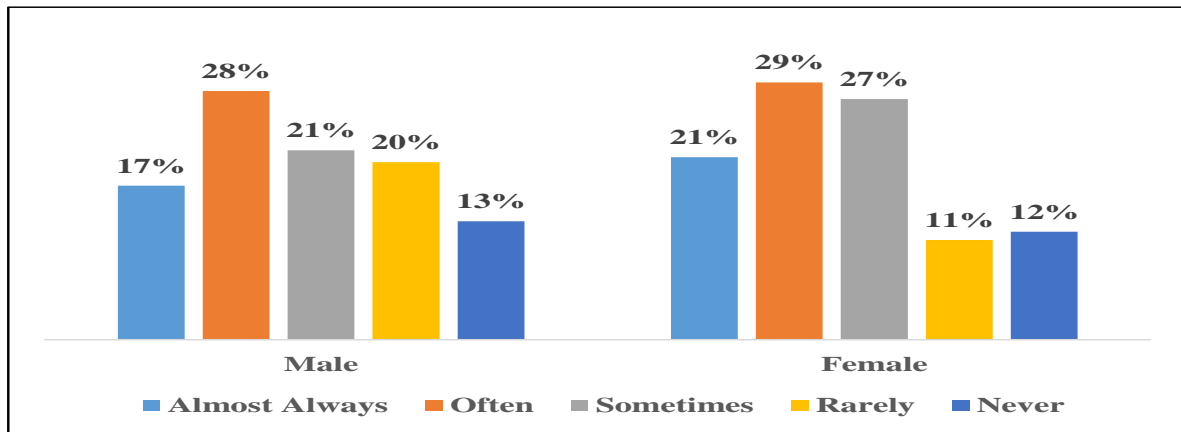
Table 2: Chi-square test for association between age and adoption of OGR

Since the p-value(0.025) is less than alpha(0.05), we reject the null hypothesis H_0 .

Thus, age and adoption of OGR are significantly associated. Accordingly, Cramer's

V, which is a test of strength of association shows moderate strength (0.219).

Chart 4: OGR Adoption based on Gender



Source: Primary Data

Chi-Square Test:

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	3.190	4	0.527
Likelihood Ratio	3.156	4	0.532
Linear-by-Linear Association	0.925	1	0.336
N of Valid Cases	182		
Symmetric Measures:			
	Value		Approximate Significance
Phi	0.132		0.527
Cramer's V	0.132		0.527

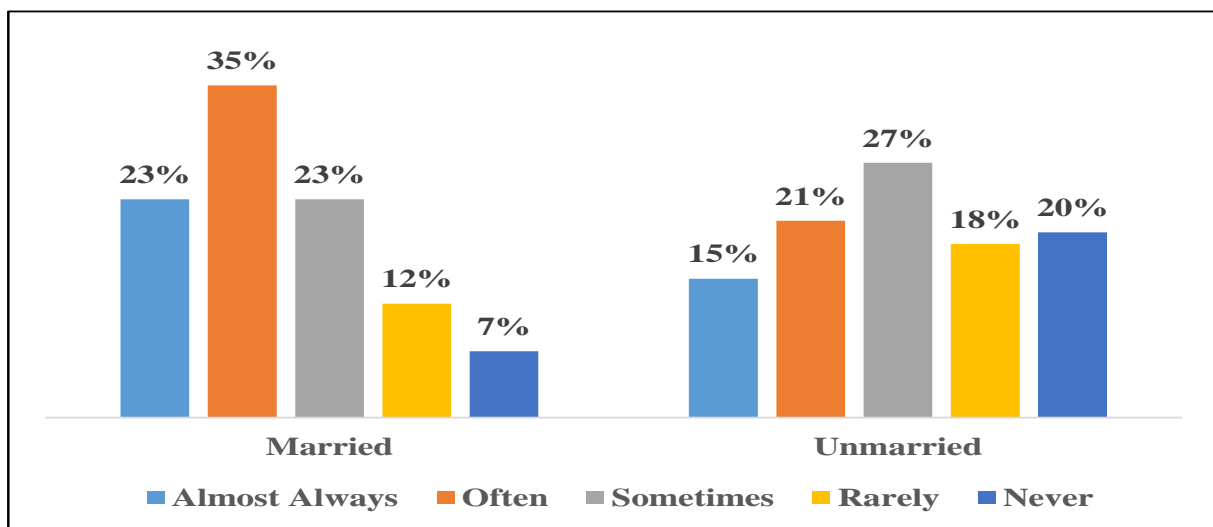
Table 3: Chi-square test for association between gender and adoption of OGR

Since the p-value(0.527) is greater than alpha(0.05), we fail to reject the null hypothesis H_0 . Thus, there is no statistically

significant association between gender and adoption of OGR.

Accordingly, Cramer's V shows a weak value of association (0.132).

Chart 5: OGR Adoption based on Marital Status



Source: Primary Data

Chi-Square Test:

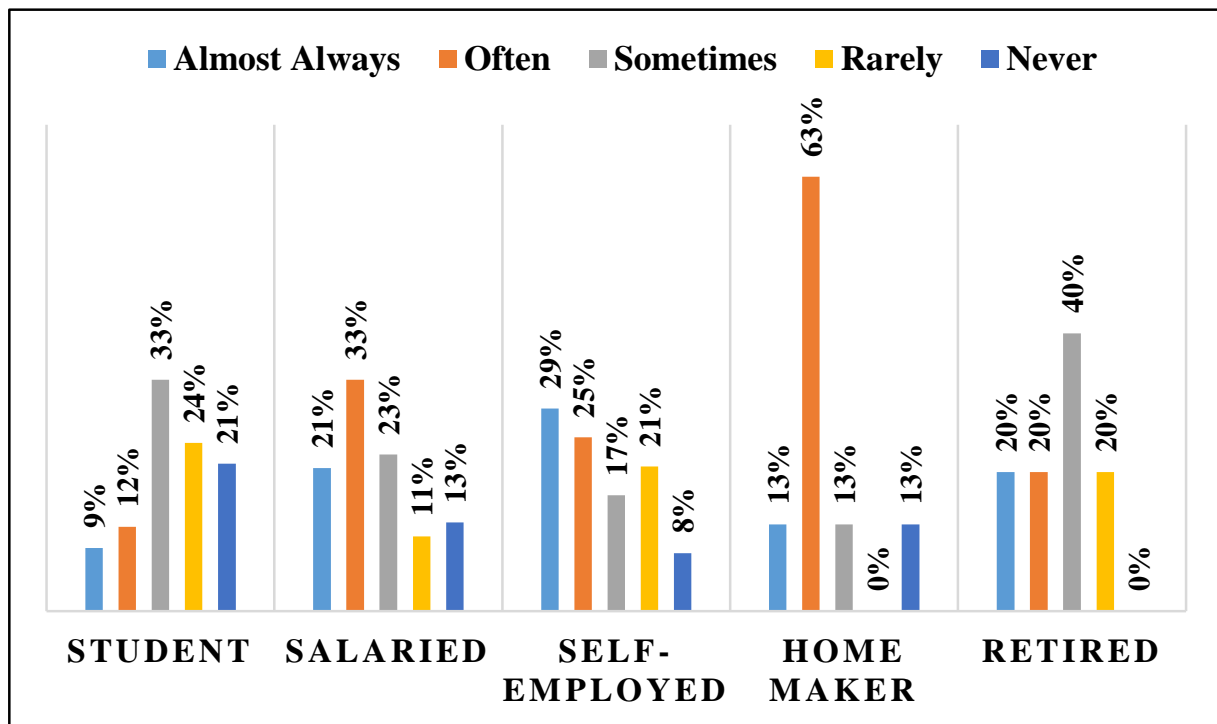
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	11.901	4	0.018

Likelihood Ratio	12.069	4	0.017
Linear-by-Linear Association	10.634	1	0.001
N of Valid Cases	182		
Symmetric Measures:			
	Value		Approximate Significance
Phi	0.256		0.018
Cramer's V	0.256		0.018

Table 4: Chi-square test for association between marital status and adoption of OGR

Since the p-value(0.018) is less than alpha(0.05), we reject the null hypothesis H_0 . Thus, marital status and adoption of OGR are significantly associated. Cramer's V shows moderate strength of association (0.256).

Chart 6: OGR Adoption based on Occupation



Source: Primary Data

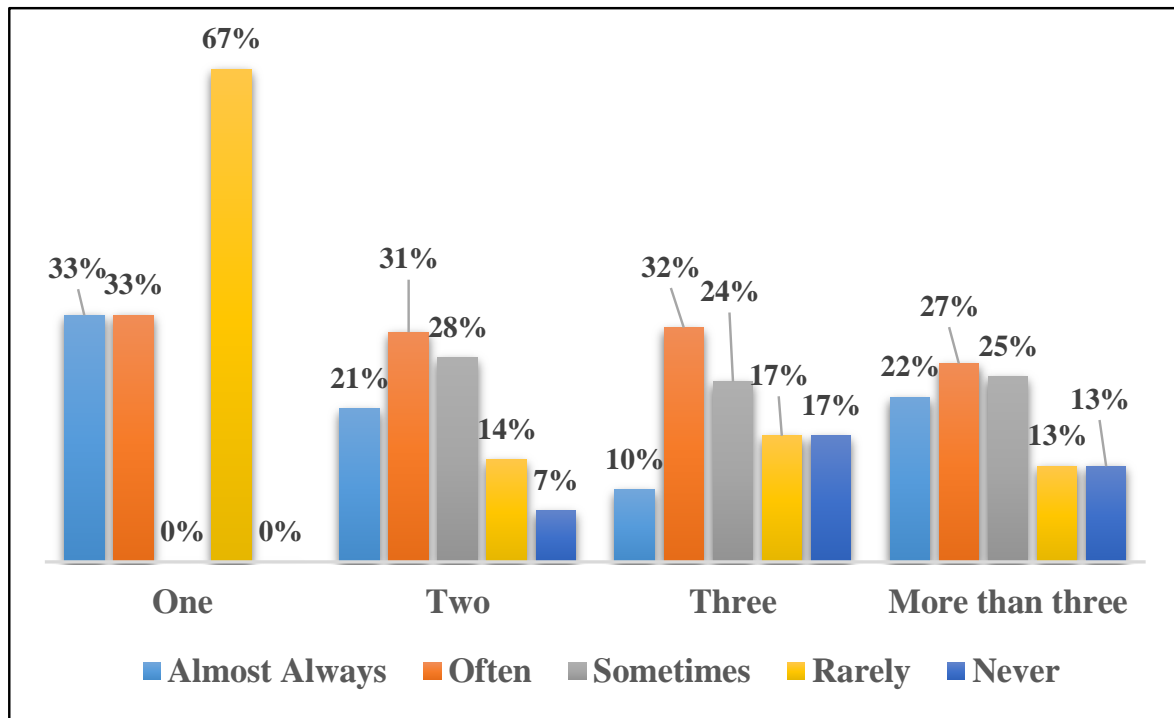
Chi-Square Test:

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	23.956	16	0.090
Likelihood Ratio	26.683	16	0.045
Linear-by-Linear Association	3.978	1	0.046
N of Valid Cases	182		
Symmetric Measures:			
	Value		Approximate Significance
Phi	0.363		0.090
Cramer's V	0.181		0.090

Table 5: Chi-square test for association between occupation and adoption of OGR

Since the p-value(0.090) is greater than alpha(0.05), we fail to reject the null hypothesis H_0 . Thus, there is no statistically significant association between occupation and adoption of OGR. Accordingly, Cramer's V shows a weak value of association (0.181).

Chart 7: OGR Adoption based on Family Size



Source: Primary Data

Chi-Square Test:

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	9.598	12	0.651
Likelihood Ratio	10.287	12	0.591
Linear-by-Linear Association	0.004	1	0.951
N of Valid Cases	182		
Symmetric Measures:			
	Value		Approximate Significance
Phi	0.230		0.651
Cramer's V	0.133		0.651

Table 6: Chi-square test for association between family size and adoption of OGR

Since the p-value(0.651) is greater than alpha(0.05), we fail to reject the null hypothesis H_0 . Thus, there is no statistically significant association between occupation and adoption of OGR.

Accordingly, Cramer's V shows a weak value of association (0.133).

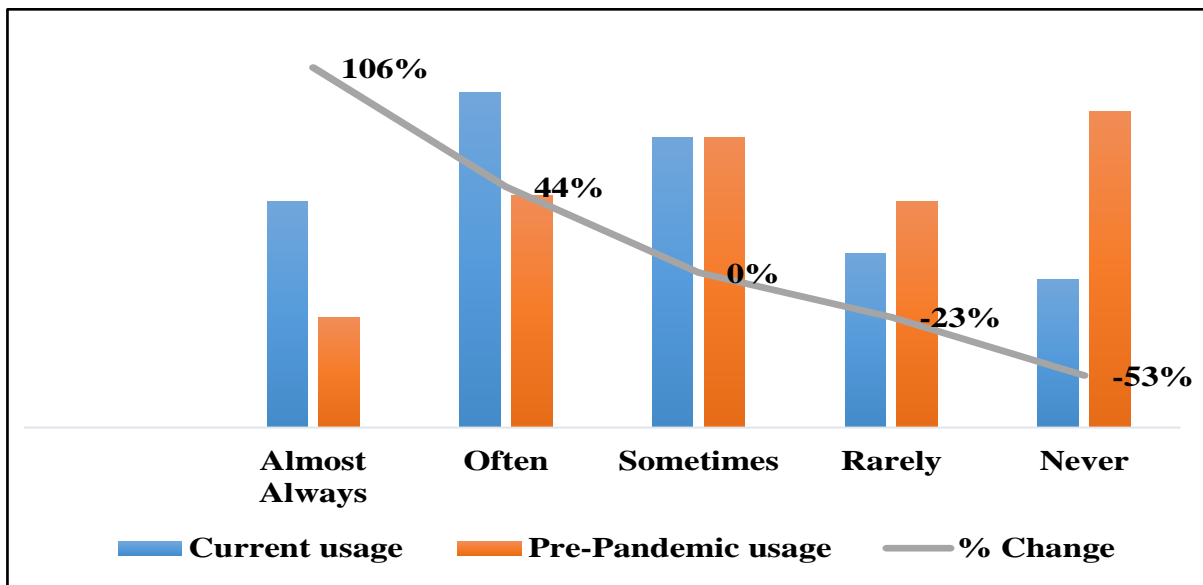
To gauge the impact of the pandemic on OGR adoption, we studied the change in frequency

of online purchase, previously and after the onset of the pandemic. This helps identify newbie buyers (first time customers), temporary buyers (who may return to brick-and-mortar stores once social distancing norms are repealed) and permanent converts, who are here to stay.

Table 7: Change in OGR Adoption due to Pandemic

	Current usage of OGR	Pre-Pandemic usage of OGR	Percentage Change
Almost Always	35	17	106%
Often	52	36	44%
Sometimes	45	45	0%
Rarely	27	35	-23%
Never	23	49	-53%
Total	182	182	

Chart 8: Pandemic Impact on OGR Adoption



Source: Primary Data

The pandemic has brought about a dramatic increase in adoption of OGR, with an increase of 106 percent of customers who almost always buy groceries online.

Findings of the Study

- Most respondents are well-versed with OGR, which indicates that consumers have been made aware of OGR, laying the foundation for adoption.
- In addition to the given online grocery retailers, respondents also mentioned DMart Ready, Nature’s Basket and StarQuik, which are predominantly brick and mortar grocery retailers that also provide online delivery options, especially during the pandemic. This shows a trend amongst traditional retailers making a move towards OGR as well.
- It was found that demographic variables of age and marital status have a significant association with adoption of OGR
- Demographic factors such as gender, occupation and family size were found to not have a significant association with adoption of OGR.
- The pandemic has clearly had a favourable impact on the adoption of OGR. The

number of consumers who often or almost always purchase their groceries online has increased by 64 percent from the pre-pandemic days.

- The number of people who have never ordered groceries online has reduced by 53 percent after the onset of the pandemic, indicating newbie customers in the OGR domain.

Conclusion

The study found that the pandemic has had a positive impact on the adoption and awareness of OGR in Mumbai. By offering safety and convenience during these uncertain times, online grocery retailers have got a foot in the door of Mumbai households. Majority of people in Mumbai are now aware of online grocery retailers, as well as brick and mortar stores that provide online deliveries. Thus, retailers are right to target the burgeoning OGR market in Mumbai, and must identify and target customers based on their demographics, to effectively reach and delight their customers. Further, research could help retailers identify how best to reach their consumers and narrow down the factors that would convince consumers to make OGR the norm.

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A STUDY ON IMPACT OF SOCIAL MEDIA INFLUENCERS ON CONSUMER PURCHASE INTENTION

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ABSTRACT

Social Media Influencers are the ones who create a lot of buzz among the people with their content on various social media platforms. With the increase in the use of various social media platforms, influencer marketing has created a positive impact in the minds of people. Advertisements through social media influencers have changed the market dynamics. This study specifically focuses on how social media influencers impact consumer purchase intentions across various demographics. The study was conducted on 102 respondents who use social media. Structured questionnaire was prepared and was analyzed using a chi-square test. Findings show that age and gender have a significant impact on the use of social media platforms. Wherein, occupation does not have any impact on the use of social media platforms. The study also found that, people look up for reviews various social media influencers on various social media platforms for various beauty products, restaurants, clothing, and accessories by before making any purchase decision. The study concludes that social media influencers indeed create an impact on consumer's purchase intention.

Key Words: Social media, social media influencers, social media platforms, purchase intention, reviews.

Introduction

Social Media an online platform where people connect, express their views, thoughts, photos, and videos on various topics with each other. As of January 2021, there are 448 million users in India using various social media platforms such as Facebook, Twitter, WhatsApp, Instagram, Snapchat, YouTube, and many others. Approximately 85 percent of people use YouTube in India, 75 percent of people use Facebook, WhatsApp, and Instagram by 74 percent and 70 percent people respectively. With the increases in users of social media, there has been a significant increase in social media influencers also. Social media influencers are the persons who actively engage the audience with their content. They have a large number of followers on these social media platforms. They are celebrities as well as non celebrities.

As there is an increase in the use of social media platforms and there is a high preference of people towards social media influencers, brands have now found a new way of marketing their products through these influencers. Unlike TV advertisements; social media influencers try and use the products multiple times in their videos and on multiple social media platforms. This helps to connect the brand with a variety of audiences on various platforms. For instance: Mama Earth, a skincare brand has seen a drastic increase in

sales with the help of influencer marketing. Various studies have shown that influencer marketing has positively contributed to consumer's perception towards many brands and thereby leading to positive sales.

Review of Literature

The literature is based on studies related to social media, social media influencer, consumer purchase intentions which are presented below:

Dhanesh, G. S, et al (2019) in their study on relationship management to study factors affecting the relationship between the influencer and their followers. The study aimed to find the impact of paid endorsements by social media influencers on their relationship with their followers in the UAE. This research examined the effects of awareness of paid endorsement on social media followers' cognitive, attitudinal, and behavioral outcomes with four dimensions such as trust, control mutuality, commitment, and satisfaction. The study found that followers are aware of paid endorsements done by influencers and hence that does not affect the influencer – follower's relationship which is correlated with purchase and E-word of mouth publicity. Also, awareness of paid endorsements builds trust and satisfaction between followers and influencers

According to **Duffett, R. G. (2017)** teenagers are more resistant towards traditional advertising and more inclined towards social media marketing. This research focuses on various variables such as access, length of usage, log on frequency, frequency of profile update, and other various demographic variables which can influence young consumers of 13-18 age group cognitive and behavioral attitudes towards social media marketing. The study found that those consumers who spend more than 2 hours daily on social media sites and update their profiles on daily basis are most drawn towards social media marketing. Also, older consumers i.e. of the age group of 15-18 years of age group are more drawn towards social media marketing as compared to younger consumers of Generation Z.

Gafni, et al (2016) in their study have focused about the influence of negative comments on consumers. For the purpose of study, researcher monitored the reviews of three viral pages in Facebook. The study found that 90 percent of the users are exposed to negative reviews and around more than 80 percent people follow viral pages. Findings show that there is influence of positive and negative comments on consumers. eWOM creates a huge impact on large audience within less time. In order to overcome the negative impact, firms must motivate consumers to post positive comments/ reviews, firms must know how to reply to negative comments to decrease their impact. As per the study, many consumers read reviews both positive and negative before making any purchase decision.

Liu, M., et al (2012) in their study has tried to understand the impact of perceived consumer online reviews on purchase intention. The study found that high quality reviews lead to high purchase intention. More reviews on the brand post lead to more customer retention. Incentive Policy should be framed for well known genuine buyers who post detail comment about the product. The company should not try to hide negative comments. Proper ratio of positive and negative comments should be visible to prospective buyers.

Trivedi, J. P. (2018) conducted a comparative study of a celebrity influencer and an expert influencer towards consumer's purchase intention related to the fashion industry. Expert

influence and celebrity influence were the independent variables, MPI (Message Process Involvement) was the dependent variable, and attitude towards the brand and purchase intention were the other variables. According to the study, MPI (Message Process Involvement) means the level of involvement of an individual in a particular subject. The higher the level of involvement; the higher will be chances of message processing which positively influences purchase intention. The study was 443 respondents of Gen Y who were followers of the fashion industry. The study found that Gen Y prefers content from attractive celebrity influencers as compared to fashion experts. Celebrity attractiveness plays a major role in creating a strong attitude towards the brand leading to a stronger formation of purchase intention. The study also finds that influencers do not directly impact the purchase intentions in consumers but surely help to form a strong attitude towards the brand.

Weismueller, et al (2020) in their study which focuses on influencer marketing and the impact of Instagram influencers on the purchase intention of the young generation. The study was conducted in Germany on 306 Instagram users aged between 18 -34 years and was asked their view related to 10 Instagram influencers. The study finds that source attractiveness; source trustworthiness and source expertise are related to positive purchase intention. Moreover, it was found that influencers who use disclosure statements for paid partnership rather than using disclosure hashtags also show that there is paid partnership between the brand and influencer & hence increases purchase intention. Further, it was found that more number of followers positively influences trustworthiness and hence increases their purchase intention.

Significance of the Study

The study focuses on consumer perceptions towards various social media platforms. The study is about the people's preference towards use various social media platforms based on various demographic patterns such as age, gender and occupation. The aim of the study is to find whether there is any impact of social media influencers on consumers purchase intentions.

Objectives of the Study

1. To study the various social media platforms used by consumers.
2. To study the consumer purchase intention due to social media influencers

Hypotheses of the Study

H₀: There is no significant relationship between demographic profile and use of social media platforms

H₁: There is a significant relationship between demographic profile and use of social media platforms

H₀: There is no significant relationship between consumer buying and reviews by social media influencers

H₂: There is a significant relationship between consumer buying and reviews by social media influencers

Limitations of the Study

This study is limited to the people who use various social media platforms. It is limited to

the perception of respondents on basis of various demographics such as age, gender, and occupation.

Research Methodology

The basic objective of the study is to understand consumer’s perceptions towards social media influencers. For this purpose, primary data and secondary data are used. For primary data, a structured questionnaire was prepared and collected from 102 respondents who use social media. The secondary data was collected from various research papers, online sources. The sampling method used is random sampling and snowball sampling methods. The statistical tool used for the study is the SPSS package and the statistical technique used is the two-sample independent chi-square test.

Data Analysis & Interpretation

The researcher has attempted to analyze the demographic pattern of consumer buying patterns due to social media influencers.

1. Demographic profile and use of social media platforms

a) Age and Use of Social Media Platforms

	Test static/ x ²	Df	p- value	Level of significance
Age and use of social media platforms	23.44	15	0.0752341	0.05

Source: Primary Data

Interpretation:

From the above analysis, it is inferred that p-value of 0.075 is less than 0.05 level of significance. Hence, we reject the null hypothesis and accept the alternate hypothesis.

This means that there is a significant association between age and the use of social media platforms.

b) Gender and Use of Social Media Platforms

	Test static/ x ²	Df	p- value	Level of significance
Gender and use	12.75	5	0.025837	0.05

Source: Primary Data

Interpretation:

From the above analysis, it is concluded that p-value of 0.02583 is less than 0.05 level of significance. Hence, we reject the null hypothesis and accept the alternate hypothesis.

This means that there is a significant association between gender and the use of social media platforms.

c) Occupation and Use of Social Media Platforms

	Test static/ x ²	Df	p- value	Level of significance
Occupation and use	13.03723	25	0.976	0.05

Source: Primary Data

Interpretation:

From the above analysis, it is concluded that a p-value of 0.976 is greater than the 0.05 level of significance. Hence, we fail to reject the null

hypothesis. This means that there is no significant association between occupation and the use of social media platforms.

2. Consumer buying and reviews by social media influencer

Test static/ x2	Df	p- value	Level of significance
196.04	24	0.00	0.05

Source: Primary Data

Interpretation:

From the above analysis, it is concluded that a p-value of 0.00 is quite lesser than the 0.05 level of significance. Hence, we reject the null hypothesis and accept the alternate hypothesis. This means that there is a significant association between consumer buying and reviews by the social media influencer

Findings

- The study finds that 36 percent of respondents are from the age group of 26-35 years, 33 percent from 15-25 yrs, 19 percent from 36-45 years, and 10 percent above 45 years of age majority using social media for more than four hours daily.
- 57 percent of the respondents who use social media are females and 43 percent are males.
- 37 percent of respondents are from a service background, 27 percent are professionals while 22 percent are students followed by businessmen and homemakers with 6 percent & 4 percent respectively.
- Popular social media platforms preferred are Facebook, YouTube, Instagram while the least preferred are Snapchat, Twitter, and Pinterest.
- It is also found that majority of people usually ask for recommendations from family and friends and look up for the reviews on the internet before buying any electronic items, mobile phones or car/bikes or health products.
- While they largely consider social media influencers recommendations in case of beauty products, clothing and accessories, restaurants and travel places.

- Study also finds that people consider both positive and negative reviews while making purchase decisions. Negative reviews have great influence on people while making purchase decisions and they can be reduced by positive e-word of mouth publicity.
- Influencers who are vocal and transparent about their paid partnerships with brands have better relationships with their followers.

Conclusion

Results of this study indicate that there is a significant association between the age of respondents and the use of social media platforms by them. It has been found that the majority of the people who use social media are young i.e. 33 percent from the age group of 15-25 years and 36 percent from the age 26-35 years compared to older people. It is also found that gender also has a significant association with the use of social media platforms. 57percent of females prefer to use social media platforms as compared to 43percent of males. Further, occupation doesn't create a significant association with the use of social media platforms. Findings also show that people use social media to look for reviews and influencers post particularly for beauty products, restaurants, clothing and accessories. Study shows that people like to follow beauty and sports influencers, travel and food vloggers, adventure and daily life vloggers and are positively influenced by the products endorsed by them. Positive e-WOM publicity on various social media platforms creates a positive image of brand and influences their purchase decisions.

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“DISTRIBUTION CHANNELS OF FRUITS AND VEGETABLES “**A.Throat¹ and N.Zaware²**¹Department of Management Studies R.I.T.Sakhrale.²Rajeev Business School, Pune¹arjun.thorat@ritindia.edu²nitinzawaware@gmail.com**Introduction**

If the creation is of a greater degree it's everything except possible to the producer to bargain their thing prompt to the customers it will require some venture and is less practical for brief things like results of the dirt. There are set agents in supplier to end customer who plays out the gathering of spread of the thing and for that they take commission or edge. The go-betweens take after subject matter expert, distributor, broker, and retailer. The efficiency of farmer is depends upon the suitable arranging the scattering channel for movement of their thing. India is second greatest creator of results of the dirt in world. There are two huge accomplices of scattering channels of verdant food varieties those are Farmers and Customers at present both of them are mulling. Farmers get lesser pay for their produce and all the while customers get them at unnecessary expense moreover customer don't get the food sources developed from the beginning real design that it should be there is de-level of nature of results of the dirt during transportation since nonappearance of suitable infrastructural and transportation workplaces like virus stores, cooler vans chain, in the scattering channel of the food varieties developed starting from the earliest stage there could be no genuine workplaces at retail store. Most of the events Distribution channel gets longer because of tremendous number of middle people are get included flow channel like neighborhood trained professional, commission subject matter experts, trades vendors, distributor, retailers or truck merchants. It will require some venture to show up at the things to the clients thusly degradation in the quality accordingly food varieties developed starting from the earliest stage not stay new and that is the motivation to make the results of the dirt new a part of the retailer use unsafe fabricated materials a piece of the models are horrendous watchman and

lady finger are dunked in copper sulfate plan which result greener and new appeal. Carrots are plunged in red water. Therefore staying aware of nature of thing all through the scattering is transforms into the huge issue in allocation of verdant food varieties Channel compromise or vertical promoting structure may be helpful for this. Taking into account more number of middle people and intermediary they eat-up greater proportion of proposition and adds cost to the thing and hence the expense of thing gets increase while it degrees to the customer and customer tends to more prominent cost to the thing yet farmer can get only 25% of the total paid by the customer this causes another horrible effect that is as the thing is over the top or of excessive expense for customer they get it in lesser sum thusly there is diminished revenue for the thing. According to Rais M, Sheoran A, there is close around 30-40 rate post harvest wastage of verdant food varieties because of poor infrastructural workplaces of allocation channels this is more massive cost for the farm

Statement of the Problem

Fruit and vegetable production in Sangli District is mainly depend on irrigation, ponds, vegetables where oversupply of harvested products is the primary attributes. need of organized market structure on the other have achieved low creators' expense. There are creation and advertising issues testing products of the soil advancement in the Region. These are input supply, vermin and contamination, low effectiveness, creation anomaly from the creation side and nonappearance of transport, accumulating, post dealing with workplaces, facilitated market system from the promoting side (WoARD, 2007). This thus demands a widely inclusive examination of the structure as market chain assessment.

Literature Review:

Mandy Mok Kim Man (2010) Mandy Mok Kim Man (2010) The association between undeniable capacities, innovative ness, procedure types, and the item execution of little and medium-size adventures (SMEs) There was no colossal association between brand name limits, resourcefulness, and the framework types on convey execution of SMEs. Concluded on the review no basic association between brand name limits, inventiveness, and the approach types on convey execution of SMEs

Mile Terziovski (2010) Advancement practice and its presentation, suggestion in little and medium undertakings in manufacturing. If the discovering SMEs' exhibition was probably going to advance as they upgraded how much they distinguished that development culture and system were firmly related during the advancement cycle. Finished up on the survey advancement culture and system were firmly related during the development interaction.

Mukhamad Naji & Akira Kiminami (2011) Innovation, collaboration, and business execution of Indonesia SMEs As on the writing survey first in that item, cycle, and advertising measure had a critical relationship with firm execution. Closed on the survey a huge relationship with firm execution.

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improvement in thing, advancing, and affiliation didn't explain the money related display.

Research Methodology

Study Area

The review was directed at Sangli district, populated with smallholder vegetable growers. The Sangli locale where gets somewhat higher precipitation contrasted with different regions. Ranchers occupied with the creation of vegetables at Walwa, Khanapur, Palus, Shirala, Tasgaon regions were inspected as members.

Research Design

An illustrative cross-sectional examination configuration was utilized in the review with a point of portraying the benefit of vegetables cultivating in Sangli. Cross-sectional survey incorporates using different social occasions of people who contrast in elements of revenue anyway share various qualities, for instance, monetary status, educational establishment and personality

Sampling Procedure

The testing procedures used to get the vital example included purposive examining and straightforward irregular inspecting

Data Collection

Information was assembled through close to home meetings utilizing polls with both open and close finished inquiries

Data Analysis

The Statistical Package for Social Sciences was used to do data examination Data was taken from segment attributes of vegetable stakeholders high included age, sex, level of training, ranch size. To decide productivity, gross edges per individual family were determined. This is the pay acquired less the complete variable expenses. This gives the net benefit. Productivity proportions utilized included

Observation and Analysis

a. Demographic attributes of respondents

1. Gen^r

Characteristics	Frequency	Percentages (%)
Man	32	53.33
Woman	28	46.66
Total	60	100

b. Education Level

Characteristics	Frequency	Percentages (%)
Primary	15	25
Secondary	5	8.33
High School	28	46.66
Tertiary	12	20
Total	60	100

C. Age

Characteristics	Frequency	Percentages (%)
25-35 years	12	20
36-45 years	8	13.33
46-55 years	22	36.66
56-65 years	14	23.3
>65	4	6.7
Total	60	100

d. Experience

Characteristics	Frequency	Percentages (%)
0-5 years	24	40
6-11 years	28	46.7
12-16 years	3	5
>16 years	5	8.3
Total	60	100

e. Land size

Characteristics	Frequency	Percentages (%)
<1	5	8.33
1-5 ha	40	66.66
>5 ha	15	25
Total	60	100

The larger part (53.33%) of the farmers were folks and an enormous piece of them (36.66%) were between the ages of 46-55 years. Those between the ages of 25-35 were 20%, those between the ages of 36-45 were 13.33%, those between 56-65 years were 30% while those over 65 years were 6.7%. The mean age of the vegetable ranchers was seen to be 50.5, which is a conspicuous sign that vegetable developing (46.66%) of the ranchers had secondary school training, with 25% of them having finished at grade school level, just 8.33% couldn't surpass auxiliary school while 20% went to tertiary foundations for higher learning. The table in addition displays the creating

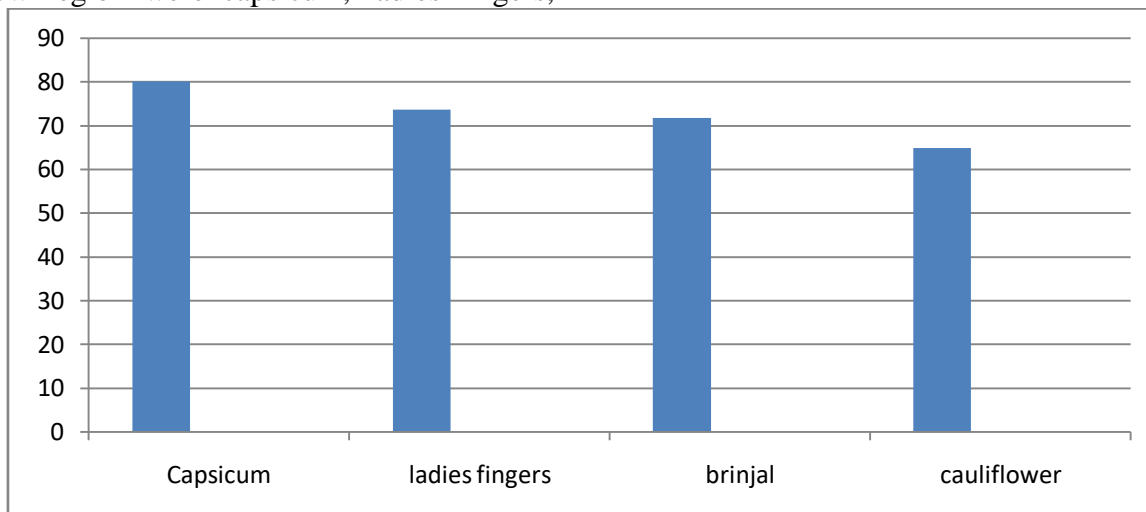
experience of the vegetable ranchers. It portrays that a bigger part (40%) had an encounter of 0-5 years, trailed by 46.7% of ranchers with experience of 6-11 years, while 5% of the ranchers having a creating experience of 12-16 years and essentially 8.3% were fundamentally gifted at more than 15 years of vegetable creation. The mean creating experience was 3 years, which recommends that most of ranchers in the Sangli locale were honorably still new in the creating industry. Also critical is the size of the land for the ranchers. A greater part (66.66%) had a sensible extent of land (1-5 ha) which they had the option to absolutely use with the open

assets, with the littlest extent of land (<1 ha) being ensured by just 8.33% of the ranchers while 25% had land more huge than 5 hectares

brinjal , cauliflower The figure shows that the greater part (80%) of the ranchers developed capsicum,, while 73.6% of the ranchers developed women fingers, 71.7% developed brinjal ,6 4.9% cauliflower

Vegetables Grown

The regularly developed vegetables inside the review region were capsicum, ladies fingers,



Variables Affecting the Profitability of Vegetable

Model	Percentage
Land size	13
Education	08
Family size	12
Experience	17
Capital available	30
Labour	20

Difficulties Faced by Vegetable Farmers

From the table it is observed that prominent factor affect vegetable production is as it is 30% followed by labour and experience respectively 20% and 17% house hold

size(12%) and land size(13%) also affect considerably. Surprisingly education affects less

Issues and challenges faced by vegetable growers in the studied area;-

Issues and Challenges of Veg.growers	“Percentage” (%)
High costs and limited access to inputs	75
Expansion in worldwide food costs	73.33
Absence of solid water offices	68.3
Absence of admittance to credit offices	73,33
Inadequate agricultural extension services	68.3

Conclusion

Different components influencing productivity of vegetable creation for ranchers in the Sangli area were examined. Information was acquired through polls and meetings with vegetable growers. Gathered information was dissected utilizing tables and graphs programming where it was uncovered that the standard time of

farmers was 50.5 years and normal making experience of three years. A family had an ordinary of eight people. Most of the them were done their education up to school level and their typical residence size was around three Acers. From the examination it was shown that vegetable creation in the Sangli region was useful and that it was affected by

various components which included land size, sex and family size .Where material financed farm wellsprings of data ought to show up at the farmers ideal and that advances should be benefitted to farmers without extreme

protection security. It very well may be derived that there is need to smooth out vegetable creation for most outrageous likely advantages while attempting to achieve the affordable progression destinations (SDGs) in Sangli

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INDUSTRY 4.0: INEVITABILITY OF SPIRITUALITY AT WORKPLACE AND ITS IMPLICATIONS ON HRM TRACK: EVOLVING WORK CULTURE AND HRM

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ABSTRACT

*With the use of steam power and mechanisation of production in the 1st Industrial Revolution, mass production and assembly lines using electricity in the 2nd Industrial Revolution, adoption of computers and automation in the 3rd Industrial Revolution and taking this further to smart and autonomous systems driven by data and machine learning in the 4th Industrial Revolution, there is significant transformation and upgradation witnessed. But concurrently, unethical practices by the businesses, the level of stress, level of dissatisfaction, demotivation, absenteeism, labour turnover and employee grievances are growing too. Lord Shri Krishna says in Bhagavad Gita: Chapter 4, Verse 24 *brahmārpaṇam brahma havirbrahmāgnāubrahmaṇāhutambrahmaiva tena gantavyam brahma-karma-samādhinā* For those who are completely absorbed in God-consciousness, the oblation is Brahman, the ladle with which it is offered is Brahman, the act of offering is Brahman, and the sacrificial fire is also Brahman. Such persons, who view everything as God, easily attain him. Advancement and technology used with spiritual touch acts as a bridge to success but without spiritual touch it acts as a wall for the same. The purpose of this research is to understand the importance of adding spirituality in the use of technology and advancement in Industry 4.0 to ensure successful human resource management in the organisation. This research study aims at understanding the Inevitability of Spirituality at Workplace and its Implications on HRM.*

Keywords: Spirituality at Workplace, HRM, Industry 4.0

Introduction

Svetasvatara Upanishad clearly states in Chapter 6, Verse 20

यदा चर्मवदाकाशं वेष्टयिष्यन्ति मानवाः ।

तदा देवमविज्ञाय दुःखस्यान्तो भविष्यति ॥

Men can end all the miseries even without gaining spiritual knowledge only if men can roll up the sky. This mantra of Svetasvatara Upanishad literally means that one can put a full stop to the miseries faced only by gaining and living spiritual knowledge. Inevitability of gaining spiritual knowledge and application of the same is not only for spiritual progress in life but also for understanding the correct method of living life and to ensure experiencing job satisfaction and to come up with best performance at workplace. Workplace spirituality ensures increased job satisfaction and better performance along with the significant transformation in the way the products are produced on account of Industry 4.0. In order to face the bizarre HR challenges posed by amplified changes on account of Industry 4.0, it is imperative to understand the inevitability of adding spirituality at workplace.

There are HR challenges attached to Industry 4.0 as any advancement, revolution and new technology is welcome with a pinch of challenges attached to it. Change in the job profile, increase in unemployment rate, reduction of creativity on account of automation, fewer full-time jobs, initial hesitation in use of new technology, heavy investment on training, job stress, communication issues, increasing health issues are problems to mention a few. Workplace spirituality is the key to solve any and all the HR problems undoubtedly. Spiritually intelligent person understands the importance of doing revolution inside because he understands that revolution done inside helps to manage external situation and external changes. Revolution outside without doing revolution inside is not the real revolution. Revolution inside refers to get connected with The Supreme Authority inside. A spiritual person remains connected to The Supreme Authority always whether at home or at workplace and will continuously engage in acquiring spiritual knowledge as he is aware that spiritual knowledge is the solution to any and all the problems.

Literature Review

Several books and websites were identified and selected for the study. The overview of the related literature is enunciated as under:

1. Bhagavad Gita on Inevitability of Spirituality at Workplace

THE BHAGAVAD GITA or THE SONG DIVINE, Gita Press, Gorakhpur, India (2002)

Lord Shri Krishna has said in Bhagavad Gita 13.17

ज्योतिषामपि तज्ज्योतिस्तमसः परमुच्यते।

ज्ञानं ज्ञेयं ज्ञानगम्यं हृदि सर्वस्य विष्ठितम्॥

Supreme Brahma is said to be the light of all lights and entirely beyond Maya. That Godhead is knowledge itself, worth knowing, and worth attaining through Real Wisdom, and is particularly seated in the heart of all.

2. Bhagavad Gita on Implication of Spirituality on right approach of Doing Work

Lord Shri Krishna says in Bhagavad Gita 2.47

कर्मण्येवाधिकारस्ते मा फलेषु कदाचन।

मा कर्मफलहेतुर्भूर्मा ते सङ्गोऽस्त्वकर्मणि॥

Swami Ranganathananda (2000) translated this shloka as: 'Your right is to work only, but never to the fruits thereof. May you not be motivated by the fruits of actions; nor let your attachment be towards inaction.'

An employer and employee, who are spiritual, understand the Law of Karma. An employer and employee who have higher level of spiritual intelligence will do *Karmayog* i.e. they understand that renunciation of the fruit of actions is even superior to meditation because peace instantaneously follows renunciation (Bhagavad Gita 12.12). Therefore, such a person offers the fruit of actions to The Supreme Authority (Bhagavad Gita 5.12). They will engage in doing good deeds always. They will make good use of whatever facilities they will be blessed with.

THE BHAGAVAD GITA or THE SONG DIVINE, Gita Press, Gorakhpur, India (2002), Page no. 49, Lord Shri Krishna has said in Chapter 3, Verse 9, Man is bound by his own action except when it is performed for the sake of sacrifice. Therefore, Arjuna, do you efficiently perform your duty, free from attachment, for the sake of sacrifice alone.

Lord Shri Krishna has said in Bhagavad Gita (Chapter 2, Verse 50), Endued with this evenness of buddhi, one frees oneself in this very life, alike from virtue and vice; devote yourself, therefore, to this yoga. Yoga is efficiency in action.

Research Methodology

Research Objectives:

1. To understand the Inevitability of Spirituality at Workplace in Industry 4.0.
2. To explore the Implications of Spirituality at Workplace on HRM in the fourth Industrial Revolution (Industry 4.0).
3. To present recommendations regarding the methods of Incorporating Spirituality in the Businesses across the Globe to ensure positive impact of Industry 4.0 on HRM.

Hypothesis:

H₀ – There is no significant positive relationship between Spirituality at Workplace and Job Performance

H₁ - There is significant positive relationship between Spirituality at Workplace and Job Performance

Data Collection

Primary Data is collected through questionnaire and interview method and secondary data for research study has been obtained from Spiritual books like Bhagavad Gita, Upanishads, websites and lectures heard during *JNANAYAJNA* of Shri Ajitbhai D. Sodha.

The sampling technique used is simple random sampling. The responses were received from 104 respondents inclusive of both employees and a few employers from Mumbai Region.

Data Analysis

The collected data has been analyzed using MS-Excel.

Limitations of the Study

1. The study is restricted to the area of Human Resource Management.
2. The study is only indicative in nature as it covers the viewpoint and experience of only a few employers and employees out of many.

Findings

Inevitability of Spirituality at Workplace in Industry 4.0

The fourth Industrial Revolution (Industry 4.0) is escorted by initial difficulties. It is no new observation that people keep contemplating about their future. A spiritual person not only thinks about his future but also about future of his family, future of his workplace, future of his nation and future of the world. Spirituality enables one to find solution of the problems faced by individual, family, organization, nation and world without worrying about the same. The one who thinks about the problems faced by all finds the solution for the same without distressing about the same. A spiritual person contemplates about the problems of all by adding faith to contemplation. Spiritual intelligence enables one to understand the following:

- ❖ Contemplation without faith never reaches to the solution of the problem.
- ❖ Contemplation with faith reaches to the solution of the problem.

All the problems get resolved in the nearness of The Supreme Authority. Each one is required to ensure proximity with The Supreme Authority and encourage others to get close to The Supreme Authority. A person sitting under a tree feels cooler and does not feel hot; will ask others too to come and sit under a tree in order to get rid of heat. One feels hot only till one does not get close to a tree and takes shelter of a tree. In the same way, people get troubled by the problems only till they do not get closer to The Supreme Authority. A spiritual person gets closer to The Supreme Authority and experiences peace and also inspires others to do the same. This alone is the solution to the problems faced by individual, family, organization, nation and the entire




globe. Whatever is being created by The Creator-The Supreme Authority is itself a big question and The One Who has created the creation is Himself The Answer to the question. Answer of the creation is The Creator alone. The one who is close to The Creator can never be troubled by the creation. This is the highest good possible of an individual, family, organization, nation and the world. Even Arjuna faced despondency in his workplace i.e. battlefield of Kurukshetra. Arjuna's state of despondency got converted into state of Yog as he got close to Lord Shri Krishna. Arjuna is question-like and Lord Shri Krishna is the Answer Himself. Despondency failed and Bliss won. Lord did not take despondency of Arjuna but did give His bliss to Arjuna. Arjuna could grasp this bliss of The Lord because he considered himself as the student of The Lord (शिष्यस्तेऽहंशाधिमांत्वांप्रपन्नम् | - Bhagavad Gita 2.7). Arjuna requested The Lord as a student to advise him and guide him to ensure his highest welfare. The one who goes to The Supreme Authority with this humility and as a good devotee will be protected by The Lord as Lord takes away all his pains and grants him with bountiful grace of bliss. Lord took away Arjuna's despondency and gave him bliss as grace. This is the experience of Arjuna and that is why Arjuna said:

नष्टोमोहः स्मृतिर्लब्धात्वत्प्रसादान्मयाच्युत |
स्थितोऽस्मिगतसन्देहः करिष्येवचनंतव || (Bhagavad Gita 18.73)

Thus, it can be stated that Arjuna's state of despondency got converted into state of Yog. And, if Arjuna's state of despondency got converted into state of Yog then anyone and everyone's despondency can get converted into the state of Yog by the nearness to The Supreme Authority. This transition is certainly incredible.

Table 1 Transition from the State of Despondency to the State of Yog of Arjuna

	<i>Arjuna approaching</i>	
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<i>Arjuna's State of Despondency</i> →	<i>Lord Shri Krishna for advice and guidance as a Student</i> →	<i>Arjuna's State of Yog</i>
Bhagavad Gita 1.28, 29, 30  Arjuna stated that his limbs are giving way and his mouth was dried up completely, his body shuddered, his bow was slipping from his hand, his skin was burning and he could not hold himself steady on seeing his kinsmen on the battlefield to fight with.	Bhagavad Gita 2.7  Arjuna on being clouded with confusion approached Lord Shri Krishna and requested The Lord as a Student to instruct him for definite whatever is best for him to be done.	Bhagavad Gita 18.73  Arjuna mentioned that his illusion was dispelled by the grace of The Lord and that he was positioned in the divine knowledge. He experienced himself to be free from doubts and therefore stated that he will follow the instructions of The Lord.

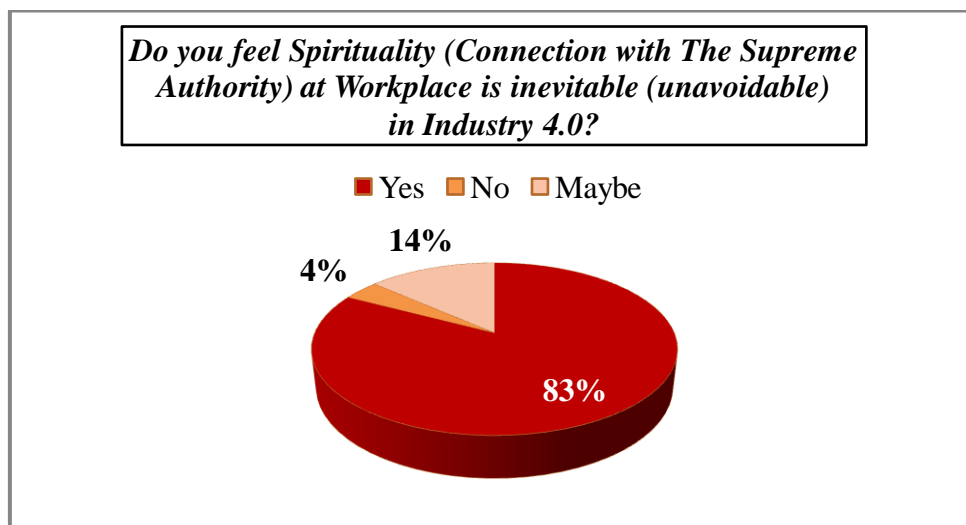
Source: Self-Compiled

Adding spirituality at workplace will make sure that HR problems and HR challenges attached with Industry 4.0 are vanquished successfully. Thus, in order to embrace the fourth Industrial Revolution (Industry 4.0) with

constructive attitude, positivity, enthusiasm and creativity, adding spirituality at workplace is inevitable.

Following question is supporting this, with the help of primary data:

Figure 1 Inevitability of Spirituality at Workplace in Industry 4.0



Source: Google Form Data Compiled

Implications of Spirituality at Workplace on HRM in the fourth Industrial Revolution (Industry 4.0)

Job Satisfaction

The Supreme Authority is realized by those who find realizing The Supreme Authority as mandatory and not optional. The Supreme Authority is realized by those who remain connected with The Supreme Authority always and everywhere. A kite flies high in the sky but remains connected with the thread-holder. If that kite loses its connection/ contact with the thread-holder then it will fall down and turn into a tattered and torn piece gradually. A

spiritual person understands that we have come into this universe but one should never lose its connection with the Life-Holder: The Supreme Authority. Spiritually intelligent person will sustain his connection with The Supreme Authority internally and by doing so will perform all his duties in the external life. Such a person though performing all his duties externally remains absorbed in The Supreme Authority always and everywhere. The address of a spiritual person is The Supreme Authority as he is always engrossed in The Supreme Authority. The address of any person is the place where he is engrossed mentally. A person

who lacks spirituality will keep thinking of his future, keep worrying about the fruit of actions, will keep distressing about name, fame, power, position and pay in the organization. This will never allow him to stay satisfied and be happy in the situation that he is put in. This dissatisfaction will have an adverse effect on his performance too which will bring in negative results which will further add to his dissatisfaction. It becomes a vicious cycle. But the one who is spiritually intelligent will remain engrossed and absorbed in The Supreme Authority internally and therefore will contemplate not only about his welfare but welfare of all that too without being worried. This is because The Supreme Authority is the source of positivity, motivation, strength, energy and everything required. This continuous connection with The Supreme Authority internally has a positive effect on the

performance of a spiritually intelligent person which brings in positive results too. It becomes a virtuous cycle. This virtuous cycle becomes beneficial for all in the organization. It benefits all the stakeholders. Workplace spirituality will ensure that everyone feels confident and motivated in the organization as there is a feeling that The Supreme Authority is there always and everywhere to protect, guide and direct; and will also ensure that there is good interpersonal relations in the organization. On account of workplace spirituality, each one in the organization will be able to adapt to the new technology in the light of Industry 4.0 with positivity which will ensure experience of job satisfaction by everyone in the organization.

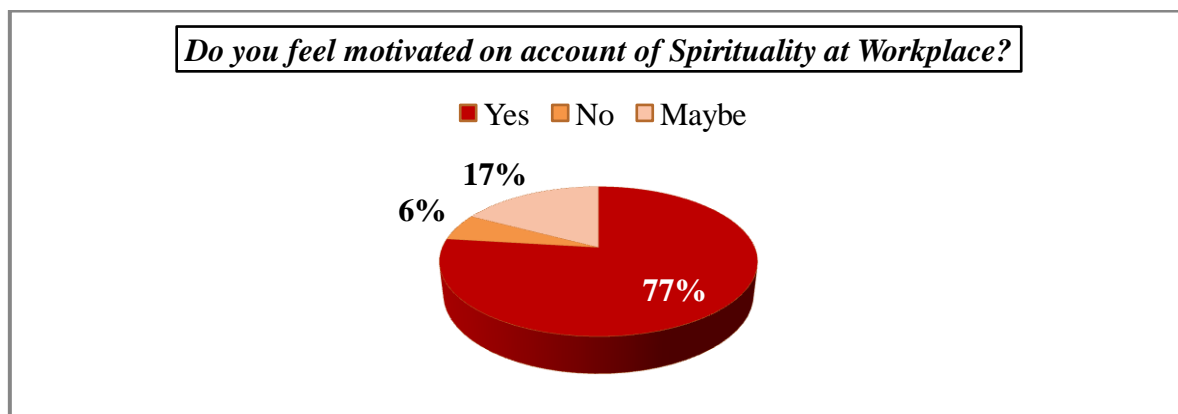
Following questions are supporting this, with the help of primary data:

Figure 2 Feel confident and satisfied at job on account of Workplace Spirituality



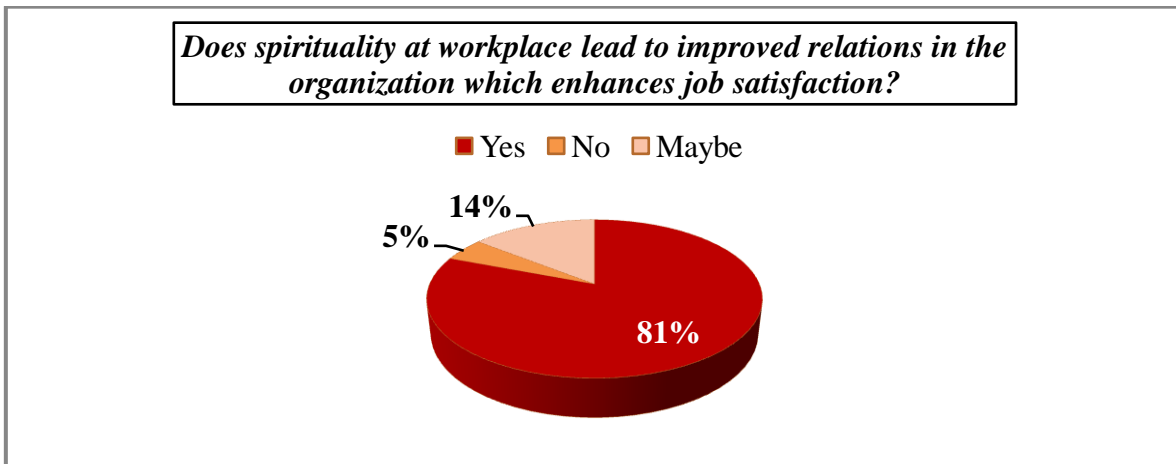
Source: Google Form Data Compiled

Figure 3 Feel motivated on account of Spirituality at Workplace



Source: Google Form Data Compiled

Figure 4 Workplace Spirituality leading to improved relations in the organization enhancing job satisfaction



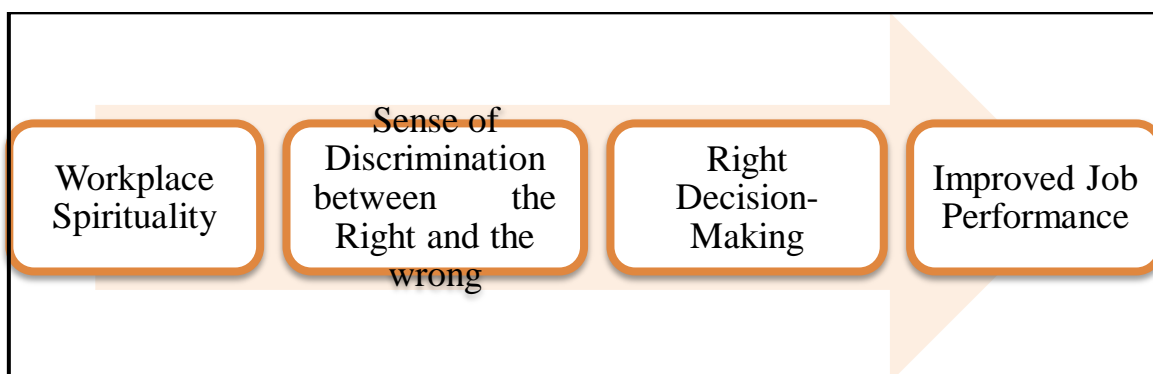
Source: Google Form Data Compiled

Improved Job Performance

Spirituality cultivates sense of discrimination between good and bad, right and wrong, truth and untruth. A spiritual person lives life by applying the sense of discrimination between the right and the wrong and keeps worshipping and applying the divine knowledge. There is no more illusion, no more confusion but only vision for a spiritual person (नष्टो मोहः स्मृतिर्लब्धा त्वत्प्रसादान्मयाच्युत स्थितोऽस्मि गतसन्देहः करिष्ये वचनं तव || - Bhagavad Gita 18.73). Through the divine vision a spiritual person keeps worshipping The Super Vision: The Supreme Authority. A spiritual person understands that external life is incorrect without the sense of discrimination between the right and the wrong and internal life is incomplete without the divine knowledge. Spiritually intelligent person lives life and performs his duties with divine

knowledge and with the sense of discrimination between the right and the wrong. Such a kind of a person is able to give his best performance everywhere. The rapid changes taking place in the field of technology on account of Industry 4.0 pose a significant challenge for each one in the organisation. Spirituality at workplace will ensure that employees are given the required support and are trained to adapt to the new technology by the employer and the HR manager. Also, workplace spirituality will doubtlessly make it certain that the employees learn and adapt to the new technology and give their best performance in the organization. This is because, on account of spiritual intelligence, each one in the organisation is able to discriminate between the right and the wrong and take the right decision that is constructive for all.

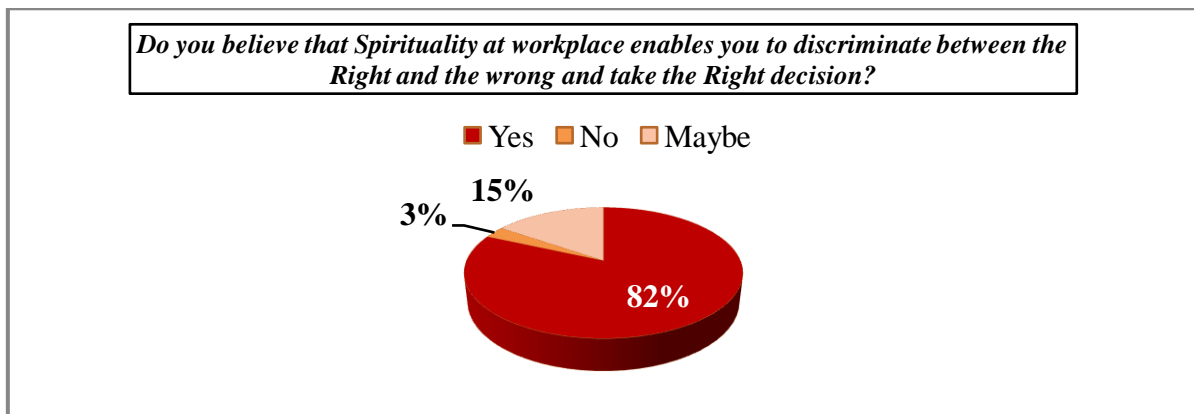
Figure 5 Implication of Spirituality at Workplace on Job Performance



Source: Self-Compiled

Following questions are supporting this, with the help of primary data:

Figure 6 Workplace Spirituality enabling to discriminate between the Right and the wrong and take the Right decision



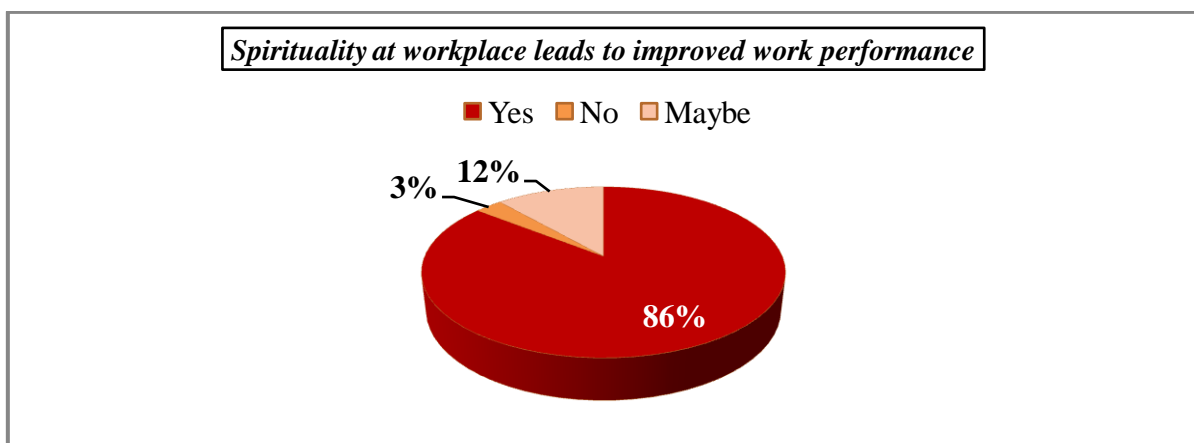
Source: Google Form Data Compiled

Figure 7 Workplace Spirituality enhancing Creativity



Source: Google Form Data Compiled

Figure 8 Spirituality at workplace leading to improved work performance



Source: Google Form Data Compiled

Thus, it can be stated that there is significant positive relationship between Spirituality at Workplace and Job Performance.

Conclusion

The paper concludes that industrial revolution is not sufficient for success; internal revolution is also required which is possible by gaining

spiritual knowledge. Technology is advancing faster than the organizations can handle; but if spirituality is added in the organizations then adapting to the new technology will become stress-free and very significantly right use of advancement in technology will be done which will ensure the welfare of all. Awe-inspiring advances are happening on account of The

Fourth Industrial Revolution (4IR or Industry 4.0) but the success principally depends on the Goodness of the human assets in the organization. Continuing to be in the mode of goodness is possible only by adding spirituality.

LORD SHRI KRISHNA says in Bhagavad Gita: Chapter 18, Verse 26

मुक्तसङ्गोऽनहंवादी धृत्युत्साहसमन्वितः ।

सिद्धयसिद्धयोर्निर्विकारः कर्ता सात्त्विक उच्यते ॥

The performer is said to be in the mode of goodness, when he or she is free from egotism and attachment, endowed with enthusiasm and determination, and equipoised in success and failure.

Thus,



Recommendations

1. Adding Spirituality at Workplace by making everyone in the organization aware of Inevitability of Spirituality at Workplace
2. Organizing Brainstorming Sessions to understand the Positive Implications of Spirituality at Workplace

3. Organize Conferences and Seminars on the subject of Spirituality at Workplace
4. Display of Spiritual Quotes on the display board at Workplace

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AN ANALYSIS OF MARKETING PATTERN FOLLOWED BY THE SOYBEAN PRODUCER OF SANGLI DISTRICT

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ABSTRACT

Soybean (Glycine max) is known as the "Brilliant Bean" of the twentieth century. It is developed in tropical, subtropical, and mild atmospheres and is the world's biggest developed oilseed. It is the principal supplier of protein having a lot of fundamental amino acids and oil. Soybean is a vegetable harvest, yet it is broadly developed as oilseed crop. It is currently the second biggest oilseed in India after groundnut. Due to its popularity, the international trade is bringing in Soybean to enhance their homegrown prerequisite for human utilization and steers feed. Prominently, the item has been abused for its utility as consumable oil and animal feed. On squashing the develop beans, around 18% oil could be acquired, the rest being oil cake/meal, which structures the prime source of protein in animal feed. The Current examination was attempted to find out the advertising design followed by the soybean cultivators. The review covered 15 towns from 3 taluks of Sangli area to shape an example of 120 respondents. A pre-organized meeting plan was utilized used to assemble the data from the respondents by close to home meeting strategy. The results showed that, 70.00 percent of the respondents sell their produce following the accumulate if the expenses are acceptable, followed by 70.83 percent of the farmers assemble the worth information from their relatives, buddies and neighbors who visit the market, 62.05 percent farmers sold their produce in adjacent market at town level, 54.16 percent of the respondents store their produce for short period of time to work on cost if the expenses are less at the hour of procure, 22.66 percent of the respondents had followed surveying of the produce.

Keywords: soybean growers, constraints and production technology

Background and Objectives

Soybean development in India has gained energy in oil front with the predictable extension close by and creation. Lately, soybean has turned into a critical oilseed yield of our nation, involving the fourth spot close to groundnut, rapeseed and mustard in region and creation. This crop has a greater potentiality to substitute various oilseeds and pulses to overcome the shortage of edible oil and protein rich food. Soybean besides having high yield potential of 20-25 q/ha, provides 20 per cent of cholesterol free oil and 40% of excellent protein. It is a flexible yield with unlimited conceivable outcomes of further developing agribusiness and supporting industry. Soybean protein is standing out enough to be noticed than some other wellsprings of protein today. Furthermore, it contains a few supplements, calcium, phosphorus and iron. Utilization of soybean consolidate rewards, aged things like soya sauce and yogurt, cheddar similar to like seared and simmered nuts, sarouts and so on Little amounts of soybean flour are currently being utilized in prepared merchandise, fundamentally rolls and in snacks. Soya flour is additionally utilized in generous amount

instead of besan in desserts, papads and similar products. Soybean ought to demonstrate a shelter to the huge populace of youngsters in India experiencing intense protein lack of healthy sustenance.. Even from the view point of calorie deficiency and food for poor, soybean can play an important role. A kilogram of soya can deliver 10 liters of milk which can fill in as a modest wellspring of the milk for poor people. Industrial uses of soybean in the drug, farming, compressed wood pastes asphalt cements, cleanser items, paper sheets, laminations, fibre boards, and shoe polish, textiles, printing inks etc. are well accepted. It is additionally utilized for industrial production of antibiotics such as streptomycin and oxytetracycline etc for example, streptomycin and oxytetracycline and so forth Japanese specialists have suggested the utilization of soybean oil as a wellspring of carbon for business creation of penicillin. Keeping this in see the current examination was attempted with the goal of an investigation of promoting design followed by the soybean cultivators in Sangli District

Statement of the Problem

Statement of the problem: As soybean is a brilliant seed due to various reason, cultivation of soybean can be a boon to farmers but due to lack of various facilities and improper organization, farmers are not getting enough profit out of it. this paper elaborates on marketing pattern of soybean followed by the farmers of Sangli district.

Literature Review

1. **Krishna and Hanumanthaiah** :-cbrghave dissected value spread of cotton in various inventory chains in the Warrangal region of Andhra Pradesh. They studied 90 little and medium ranchers, and recognized four significant showcasing channels of cotton. The ranchers got most noteworthy portion of customer's rupee in store network IV (96%) in which the Cotton Corporation of India (CCI) bought cotton straightforwardly from the maker and least offer was in inventory network I (88.2%), wherein the job of town trader was noticeable. Most of ranchers took on production network IV in light of greater cost and low showcasing costs. Cotton has likewise drawn in effective ad utilization of biotechnology

2. **Bala Krishna** et al. have drawn out the positive effect of Bt innovation in improving cotton yields in Andhra Pradesh. In light of optional information, the examination has shown that the Bt cotton region had expanded to 85 percent of the all out region under cotton development in the province of Andhra Pradesh. The creators have reasoned that Bt cotton innovation has without a doubt expanded usefulness and benefits of ranchers and disposed of the requirement for extreme utilization of synthetic pesticides. Soybean is viewed as a profoundly nutritious yield and is a decent wellspring of proteins, filaments, nutrients and minerals.

3. **Kaur and Kaur** have inspected the extent of significant worth expansion in soya items in Punjab. Because of low interest, limit use of the inspected preparing units was found very low. The creators have presumed that there is acceptable degree for food handling enterprises in Punjab, however by and by the degree of acknowledgment of soya items by the customers is nearly low.

4. **Farkade et al.** have evaluated the potential for soybean oil preparing through cooperatives in the Vidarbha locale. Among the distinctive size gatherings of handling units, the advantage cost proportion has been discovered pretty much same for medium (1.13) and enormous (1.15) preparing units, and a wide range of preparing units have great limit use (>96%). It shows a decent extension for building up soybean oil preparing units in the Vidarbha district.

5. **Farkade et al.** has examined patterns in market appearances and costs of soybean in the Vidarbha district. The greater part of the areas have announced higher development rates in region, creation and usefulness of soybean. The list number investigation has demonstrated a negative connection between the appearances and costs of soybean in the chose markets.

Research Methodology

The review was an "ex post-facto" research did in Sangli area of Maharashtra state during the year 2020-21. Sangli region contains five taluks viz., Khanapur, Walwa, Palus, Tasgaon, Atpadi Among these three taluks viz., Walwa, Palus, and Tasgaon, were chose dependent on most noteworthy region under Soybean crop improvement. In chose taluks, seven towns were chosen from palus dependent on most elevated region under Soybean crop, likewise five towns from Walwa and three towns from Khanapur taluks are chosen. From each town, ten farmers were picked haphazardly. Consequently, the review covered 15 towns from 3 taluks of Sangli region to frame an example of 120 respondents. A pre-organized meeting plan was used to accumulate the information from the respondents by close to home meeting technique. The showcasing example of the respondents was examined by requesting them to demonstrate the nature from promoting, which included where, when, to whom and through which channel, they sell their produce. Reactions got from the ranchers were conveyed in frequencies and rates.

Observations and Analysis

The data presented in Table 1 reveals that, 70.83 percent collect the price information from their relatives, friends and neighbors who visit the market. The possible reason to prefer

farmers who visited market due to the fact that they all belong to same farming community and social groups and normally farmers accept their fellow farmers than any others. Newspapers were preferred by 33.33 percent, because they carry general information and day to day market price list of different commodities. Through radio 12.05 percent and personal visit to the market 10 percent. Of growers had individual contact with market officials, whenever they visited the market for their buy half of the respondents 62.05 percent of the respondents expressed that they sold their produce in local market at the village level, because of they might have taken loan or inputs on loan premise with nearby merchants. Followed by 41.16 percent of farmers sold their produce in agro processing units, the reason for this could be get good price and immediate cash payment. Whereas, 29.16 percent of respondents sold their produce in APMC, the reason might be due to fair price obtained as it is a Government agency. About 70.83 percent of the respondents sell their produce immediately after the harvest if the costs are ideal. While, 56.19 percent of the respondents store their produce for short time to get better cost if the costs are less at the time of harvest. The reason for this could be immediate need of money and lack of storage facility in the village. It could be seen from the Table that, majority of the farmers had transported their produce to market by using tractor 69.16.

percent, followed by Goods vehicles 50.00 percent, trucks 4.16 per cent, and by Bullock cart 1.66 percent. One of the contributing reasons could be that as majority of the respondents were medium land holders and they hire the tractor for ploughing and same used for transportation of agricultural goods. Small land holders are using goods vehicles because they sold in small quantity and also transportation cost also low compared to tractor. Simply 22.66 percent of them followed evaluating of their produce. The probable reason might be the lack of knowledge, illiteracy and lack of grading facility amongst those who followed grading 87.05 percent of the respondents graded based on size and shape and remaining 3.33 percent of the respondents graded based on shrunken / shrivelled grains. The possible reason might be that, the graded produce usually get good price. Further, Majority of the respondents 54.16 percent had followed storage of their produce, among 35.83 percent of the farmers stored in bag storage and 20.83 percent of the farmers stored in loose/ heap storage. The sole reason for these findings might be lack of knowledge, illiteracy, and damage during the storage period, lack of storage facilities and also immediate need of money. The important reasons for storing the produce by a few farmers were for getting good prices, for seed purposes and for own consumption.

Sr. No.	Statements	Number	%
	Source of price information		
1	News paper	40	33.33
	Radio	15	12.5
	Personally visiting market	12	10
	Relatives, friends, neighbours who visit market	85	70.83
	Selling		
2	Local market at the village level	75	62.5
	APMC	35	29.16
	Agro processing units	50	41.66
	Time of selling the produce		
3	Sale after the harvest if prices are favourable	85	70.83
	Store for short time and selling the produce	65	54.16
	Mode of transportation		
4	Bullock cart	02	1.66
	Tractor	83	69.16
	Goods vehicles	60	50
	Trucks	05	4.16
	Grading		
	Followed	32	26.66

5	Size and Shape	30	87.05
	Shrunked / Shrivelled	04	3.33
	Not followed	116	96.66
6	Storage		
	Followed	65	54.16
	Bag storage	43	35.83
	Bulk or heap storage	25	20.83
	Not followed	84	70

Conclusion

The study reported that majority of the soybean growers collect the price information from neighbours who visit the market, few followed storage of their produce and among them very few farmers followed the grading, nearly half of the farmers sold their produce in in area market at the town level immediately after the harvest if the prices are ideal. Thus, there is a

need to train the farmers on collect the market information from formal sources, storage facilities for the farmers at the warehouses and advantages of grading. In this aspect Government should establish warehouses even at taluka and sangli level will facilitate the farmers to store their produce till they get good price

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