"CONTEMPORARY ISSUES AND RECENT ADVANCES IN MANAGEMENT, COMMERCE, ECONOMICS, ARTS, LAW AND HUMANITIES"

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ONE PERSON COMPANY IN INDIA: CONCEPT AND IT'S CHALLENGES

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Abstract:- A very new concept of One Person Company which is quite similar to Sole Proprietorship Business was introduced by the Companies Act, 2013. The purpose behind this concept was to remove the deficiencies of Sole Proprietorship Business and to encourage more entrepreneurs to come forward and form a company with just one member and even with limited liability. OPC opens the gate of new opportunities for those who seek full and only control over the business. In this paper, we will get to know about the concept of OPC and its challenges, how this concept is turning the tables for the new businesses.
Keywords: OPC, Companies Act, 2013, Incorporation, MCA, ROC.

1. INTRODUCTION

There was a time when a new businessman used to worry about establishing a business with a feat of unlimited liability involved in it, but after the year 2013, a revolutionary change has been brought forward by the Companies Act, 2013 in the form of OPC. This concept founds its roots in the year 2005 when a committee named after Dr. JJ Irani recommended this new form of company. The concept was introduced in Companies Bill, 2009. This bill was later in the year considered as Companies Bill, 2011, and finally, in the year 2013, it became a part in the Companies Act, 2013. It makes OPC member as a lone warrior, who used to struggle in the past due to disadvantages of Sole Proprietorship Business. Considering the Covid situations and the most trending word Aatmnirbhar Bharat, young entrepreneurs can take an advantage of this form of company, where they will receive all the benefits of private companies and limited liability.

"The individual has always had to struggle to keep from being overwhelmed by the tribe. If you try it, you will be lonely often, and sometimes frightened. But no price is too high to pay for the privilege of owning yourself."

—Friedrich Nietzsche

According to Section 2 (62) of the Companies Act, 2013 - "One Person Company means a company which has only one person as a member." One Person Company is classified as a private company for all legal purposes (Chapter II Section 3, Companies Act, 2013). Earlier, according to the Companies Act, 1956 to form a private company, there was a requirement of a minimum of two members. It provides all the benefits of a private company, having access to all the necessary things which is required for a company.

The UK and several other European countries use to practice this concept for a long time, but in India's point of view this a very new concept. UK was the first country to introduce the concept of OPC to the world. This paper seeks to understand the very concept of OPC and how it is different from the Sole Proprietorship form of business.

2. CONCEPT OF OPC

OPC is a form of company that is considered a private company. (Section 3(1)(c) of Companies Act, 2013), having only one person as a member. Every OPC needs to mention the word "One Person Company" in brackets below the name of the company name. (Section 12 (3) Companies Act, 2013). OPC is limited by shares and cannot issue its shares to the public. The Minimum paid-up capital limit is 1 Lakh Indian Rupees. The procedure required to incorporate the OPC is somewhat similar to a private company, one extra clause needed in the case of OPC is a nominee

clause, in the case of death of the original member of the company nominee clause comes into play. Both the original member and the nominee is required to be Indian. A consent in writing is required from the person who is nominated as a nominee while incorporating the company (Company (Incorporation) Rules, 2014).
OPC can be formed as:

1. Limited by Shares.
2. Limited by Guarantee.

Section 92 of the Companies Act,2013 provides an exception which is generally not available for private companies and only available for OPC, it says that Annual returns of the OPC can be signed by the Company Secretary and in case if there is no company secretary, director of the company can sign the returns.

Other requirements regarding OPC are as follows:

a. Only natural person resident of India is eligible to incorporate OPC.
b. Must have one director, the only shareholder of the company can become the director, mostly at the time of incorporation the promoter of the company becomes the director
c. OPC can have a maximum of 15 people as the director of the company.
d. One person is eligible to incorporate only one OPC, and can only be a nominee in only one OPC.
e. Minor is not eligible to be nominated as a nominee.
f. OPC cannot be converted into Section 8 companies (Companies with Charitable Objects).
g. It cannot carry out non-financial investment activities (rule 3(6))
h. Changing/converting OPC into other kinds of companies voluntarily is prohibited in the first two years from the incorporation. (Rule 3(7))
i. One board meeting is required to be held in six months or can be twice a year.
j. The resolution which is passed in the meeting must be entered into the minute book, same to be signed by the director.
k. Allowed to have a max turnover of Rupees 2 crore.

2.1 Advantages of OPC

The desire of a young entrepreneur is always to have full control over his/her business, OPC here is the best kind of form of the company where a young businessman can fulfill his dreams, can start a company of his choice and passion. Implementation of plans is also easy in the case of OPC. Personal attachment, commitment, and passion towards the business make it easier to run the OPC more efficiently and effectively.

OPC is that concept that is most favorable to the small entrepreneurs who want control with the benefit of limited liability. OPC provides advantages of quick decision making, flexibility. Tax benefits are also available for OPC as a domestic company the surcharge rate for OPC income between 1 crore to 10 crore's is 5 percent. As we have discussed earlier in this paper that OPC is treated as a private company so it enjoys all the features of a private company and also has a separate legal entity then its member, and the perpetual succession feature is also applicable here in the case of OPC, even in the case of the death of the only member the company does not get affected, nominee takes the place of the deceased member of the company.

2.2 Disadvantages of OPC

Everything comes with a price, OPC has many advantages, but at the same time, it has some disadvantages also. Decision-making is quick in the case of OPC but the same is limited by the capability of the member's skill and knowledge. Even in the

case of perpetual succession, it has some disadvantages, a nominee who is appointed as a member in the case of death of the original member does not have the similar level of skills, passion, and determination towards the company as the previous member do.

Most financial groups consider the OPC the same as the proprietorship business, as there is no democratic decision-making system. Even having all the qualities and benefits of a private company, OPC lacks the credit availability and trust of others. This can be the main reason why it is still in the initial stage in India.

On one hand, the limited liability feature of OPC is the most beneficial to the member, but on the other hand, investors feel a bit unsafe while investing their money in this kind of venture. There is been always a risk for the investors of the loss of their money in case the OPC does not perform well.

There is a complete absence in the Income Tax act regarding the taxability of OPC, whether it should be taxed the same as other companies or not it is still not cleared by the act.

2.3 How OPC is Different from Sole Proprietorship

As the main and the basic difference between OPC and Sole Propertoship is a liability. OPC enjoys limited liability, whereas in the case of Sole proprietorship business liability is unlimited.

Execution of will is required in the case of the death of the owner of the Sole Proprietorship business. While in the case of OPC a person is nominated as the nominee and he takes the place of the deceased member OPC needs to get accounts audited in the similar manner provided for the private company, and needs to file an annual return having an identity of a company.

In the case of the Sole Proprietorship business, it needs to get audited only if the turnover of the business exceeds the limit, as per section 44 AB of the Income Tax Act, 1961. OPC enjoys perpetual succession, the same is not available in the case of a sole proprietorship, its existence depends on the existence of the owner of the businessman. The taxation system is also different for both.

3. STATISTICS ON OPC IN INDIA

As of 30th November 2019, a total of 25,763 OPC were registered.

Economic Activity-wise One Person Company						(Authorized Capital in Rs. Lakh)
Sl. No.	Economic Activity	Up to 30.11.2019		During November, 2019		
		Number	Authorized Capital	Number	Authorized	Capital
I	**Agriculture and Allied Activities**	**424**	**1,527.61**	**15.00**		**59.40**
II	**Industry**	**3,761**	**13,637.82**	**169**		**464.20**
1	*Manufacturing*	2,544	8,690.61	137.00		346.90
2	*Construction*	1,054	4,356.51	28.00		109.20
3	*Electricity, Gas & Water companies*	119	415.40	4.00		8.10
4	*Mining & Quarrying*	44	175.30	-		-
III	**Services**	**21,575**	**59,707.94**	**503**		**1,633.48**
1	*Business Services*	14,587	37,460.08	272.00		898.68
2	*Community, personal & Social Services*	3,163	8,854.40	87.00		232.35
3	*Trading*	2,472	8,296.08	101.00		360.35
4	*Real Estate and Renting*	508	2,345.89	12.00		75.00
5	*Transport, storage and Communications*	784	2,194.50	31.00		67.10
6	*Finance*	59	537.00	-		-
7	*Insurance*	2	20.00	-		-
IV	**Others**	3	35.00	-		-
	Total	**25,763**	**74,908.38**	**687**		**2,157.08**

Source: MCA (Ministry of Corporate Affairs)

4. ISSUES AND CHALLENGES OF OPC

As it is a very new concept from India's point of view, it will take some time to develop itself via various correction processes. Time is testing the credibility of this form of company, as it provides promising support and features to the young entrepreneurs but at the same time, it creates some worries in the mind of the investors.

The role and responsibility of the Company Secretary are also in question in the case of OPC. The annual return of OPC can be signed by a director in the absence of a Company Secretary. Even the turnover limit is 2 crore, and the capital investment limit is 50 lakh, this structure does not define a proper role of a full-time company secretary in the OPC. Public queries can remain unsolved for a longer period as if the only member of the OPC who is also a director of the OPC is gone out of India and is been unavailable for a longer period.

Chain of nomination is also a big concern in the case of OPC, one nominee is to be nominated by the member, and in the case of death of that member nominee takes the charge and all the shares, rights, and liability get transferred to him. Then that nominee needs to nominate one other person as a nominee for himself. The problem arising here is the system of the nominee is not stable. Even a nominee can withdraw himself without giving any reason

Countries like China and Singapore allows the artificial person to become a member of an OPC, but in the case of India, the Companies Act, 2013 does allow an only natural person to be a member of OPC The turnover limit is also less, this is another issue that is faced by OPC
in the current scenario.

5. IMPACT OF OPC IN ENTREPRENEURSHIP

Less paperwork, no other shareholder, limited liability, full control are the features of OPC which are attracting entrepreneurs. As the COVID situation came into existence last year, the word which was in trend was AATM NIRBHAR BHARAT, in which young entrepreneurs were encouraged by the PM to come forward and to set their own business to make themselves self-dependent. OPC is providing the solution for the needs which a young businessman seeks for. Most importantly it consists of limited liability which reduces the risk of other forms of business. OPC is doing well in the European countries, same has been expected from India that after some time it will going to perform like other countries. Being a new concept it still needs some attention.

6. CONCLUSION

The prime need of the present men is freedom of speech, control over the activities he wants to get involved in, power of thought, to act according to the passion he desires for. In the case of setting up a business a businessman strives to get all these freedoms and benefits, and OPC is the kind of concept which offers most of these features.

Yes, there is some criticism for this concept, but let's not forget the advantages it has over the sole proprietorship business. Investors do have some concerns while dealing with an OPC, but the same can be ignored as the fact that other companies enjoy limited liability and LLP (Limited Liability Partnership) also as the name suggests have limited liability but still, investors are working with them.

Fast and easy incorporation of OPC makes it more attractive, tax benefits and other exemptions provided by Companies Act, 2013 is also a plus point which is making this concept more promising.

At present this concept is facing a lot of challenges, there is a need for some improvement in the concept which will be surely be improved as time will pass. JJ

Irani Committee has done a great job by recommending this wonderful concept, as it is a very new and exciting form of company, attracting the young generations towards it. It will be too early to say that if this concept is successful in India or not.

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RIGHT TO FREE LEGAL AID - A STEP TOWARDS EQUAL JUSTICE TO CITIZENS

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1. INTRODUCTION

Equality before the law is something which has been granted to us by the constitution and India being a modern state has accepted the concept of 'welfare state'. Hence it's the role of the state to work for the welfare of the people. It is the state's function to establish socioeconomic justice by enacting laws and to provide everyone with equal chance to grow. Accesses to justice is a basic human right given by the common law and exists until and unless stripped by the constitutional power. There were laws in the country that advocated for equal justice, but due to various socioeconomic reasons the poor peoples and several groups were unable to obtain the equality. The unawareness about the laws that were meant for their benefit and unable to afford a lawyer to present themselves before the court of law often led to the injustice to people.

That was when a need for a law was felt that would bring the poor and needy into the light and give them equal opportunity to be represented in the court of law. Resultantly, to make available the law channels of justice to poor, free legal aid services have been made and incorporated into the legal system. By the 42nd constitutional amendment act of 1976, a new provision was included in the constitution under article 39A, for dispensing free legal aid. To uphold the democratic values and attain social justice Article 39A which was included under Directive Principles of State Policy. Legal Aid which means giving free legal services to the poor and needy who are unable to afford the services of an advocate for the conduct of a case or a legal proceeding in any court, tribunal or before an Judicial authority. The problems of human law and justice, guided by the constitutional goals to the solution of disparities, agonies, despairs, and handicaps of the weaker, yet larger brackets of humanity is the prime object of the dogma of "equal justice for all". Thus, legal aid strives to ensure that the constitutional pledge is fulfilled in its letter and spirit and equal justice is made available to the downtrodden and weaker sections of the society. It is the duty of the State to see that the legal system promotes justice on the basis of equal opportunity for all its citizens. It must therefore arrange to provide free legal aid to those who cannot access justice due to economic and other disabilities.

In **Maenka Gandhi v. Union of India** the Supreme Court gave a new dynamic dimension to Article 21. Protection of this article is well extended to under-trials, prisoners and even to the convicts. It has been ruled that a prisoner, be he a convict, under-trial or a detenu, does not cease to be a human being. Even when lodged in the jail, he continues to enjoy all his fundamental rights including the Right of Life.

In **M.H. Hoskot v. State of Maharashtra** the Supreme Court laid down that right to free legal aid at the cost of state to an accused, who could not afford legal services for reasons of poverty, indigence or incommunicado situation, was part of fair, just and reasonable procedure implicit in Article 21. Free legal aid to be indigent has been declared to a state's duty and not government charity."

In case of **Hussainara khatoon v. state of Bihar**, it was held that if the accused is not able to afford legal services it was states responsibility to provide him with free legal aid at its cost. As its state's responsibility to promote justice on equal basis irrespective of persons background. Therefore it must arrange to provide free legal aid to people who are unable to access justice due to various reasons.

2. HISTORY OF LEGAL AID

The legal aid's concept finds its root in the finely established principle of natural justice "Audi Alteram Partem" meaning hear the other side. Even in the primitive society where there were no written laws and rules the leader of the tribe used to hear the both parties involved and then passed his judgment. The reason that there were not many rules and laws it was easy for the people to be aware of handful laws that existed and there was no need of a lawyer to plead on their behalf. In today's world each passing year new laws and rules are continually being added to the existing one by the parliament or the state legislature. In addition to these laws, there is a judge made law in the shape of precedents.

Due to all these it has become impossible for a party to be aware about all the laws in his favor or against and the necessity for assistance by the lawyers becomes prominent. Legal aid is a provision for the assistance of such people who otherwise will have no access to the justice. Legal aid ensures that the equality before law is maintained by providing everyone with equal opportunities and right to counsel and right to fair trial. Various models for the same have emerged such as duty lawyers, community legal clinics and payment to the lawyers for the people who are entitled to receive the legal aid.

The earliest legal aid movement appears to be that of year 1851 in France when some law were passed to provide the legal assistance to the indigent. In Britain, the history of providing the legal aid to the needy by the state dates back to 1944, when the Rush cliff Committee was appointed by the Lord Chancellor Viscount Simon to enquire about the facilities in the England and Wales that ensure that the needy have access to the legal advice and recommend the changes that need to be done in order to provide the legal aid to the needy.

In India the government started addressing the need and question of legal aid since 1952, in various conferences and seminars of law ministers and commissions. In 1958, first law commission was formed and in its fourteenth report it gave a strong plea to implement Bhagwati and Harries reports. The commission also advocated that the word 'pauper' in CPC, order XXXIII be replaced by the word 'poor persons' or 'assisted persons' .In 1960 the initial guidelines were drawn by the government for various legal aid schemes and these were floated by various legal boards, societies and department in various states but, various state governments expressed their inability to allocate funds for various legal aid schemes during the conference held in the same year.

A national conference was again organized in 1970 in New Delhi on 'Legal aid and legal advice'. In this conference it was emphasized that it was state's responsibility to make provisions that will help the weaker section of society to have an equal representation in front of the law.

The Gujrat government in 1970 appointed a 'Legal aid committee' chaired by P.N. Bhagwati for the first time to grant legal aid to several backward classes and other proceedings to backward classes and to make such recommendations on question of encouragements and financial assistance to institutions engaged in the work of such legal aid. This committee based on its observation recommended certain tests to check for if the person was eligible for the free legal aid. The tests were:

1. **Means Test:** This test meant that before giving free legal aid to an individual, the sources of income of applicant should be considered.
2. **Prima Facie Test:** This test does not apply in criminal cases. In, civil cases when the means test is concluded the applicant for free legal aid is required to show that he has a prima facie case, either to prosecute or defend the action.
3. **Reasonableness Test:** After the means test and prima facie tests are satisfied; the duty falls upon the legal aid committee to finally decide whether it is reasonable to provide legal aid to the applicant or not.

The year 1987 proved to be an important milestone in the direction of dispensing legal aid to the needy as the "Legal services authorities act" was enacted to give a statutory basis to the legal system programs throughout the country. This act was finally enforced on the 9th November 1995 after amendment act of 1994.

3. ARTICLE 39-A. EQUAL JUSTICE AND FREE LEGAL AID

The State shall secure that the operation the legal system promotes justice, on a basis of equal opportunity, and shall, in particular, provide free legal aid, by suitable legislation or schemes or in any other way, to ensure that opportunities for securing justice are not denied to any citizen by reason of economic or other disabilities. This Directive Principle was inserted by the Constitution (42nd Amendment) Act, 1976.

A). The individuals eligible to apply and get free legal aid include

1. Women and children
2. Members of scheduled caste and scheduled tribe
3. Industrial workmen
4. Victims of mass disaster, violence, flood, drought, earthquake, industrial disaster.
5. Disabled persons
6. Persons in custody

7. People whose annual income is less than Rs 1,00,000/-,
8. Victims of human trafficking
9. Facing a charge which might lead to imprisonment.

B). The free legal services include:
1. Payment of court fees, process fees and all other charges payable or incurred in connection with any legal proceedings.
2. Providing advocate in legal proceedings
3. Obtaining and supply of certified copies of order and other documents in legal proceedings.
4. Preparation of appeal, paper book including printing and translation of documents in legal proceedings.

C). The application for the free legal aid can be rejected if the applicant:
1. Has adequate means to access justice;
2. Does not fulfill eligibility criteria;
3. Has no merits in his application requiring legal action

D). Free legal aid remains unavailable in:
1. Cases of defamation, malicious prosecution, contempt of court, perjury etc.
2. Proceedings related to election;
3. Cases where the fine imposed is not more than Rs 50/-;
4. Economic offences and offences against social laws;
5. Cases where the person seeking legal aid is not directly concerned with the proceedings and whose interests will not be affected.

E). Withdrawal of legal aid
The legal services committee can withdraw the services if,
1. The aid is obtained through misrepresentation
2. Any material change occurs in the circumstances of the aided person;
3. There is misconduct, misbehavior or negligence on the part of aided person;
4. The aided person does not cooperate with the allotted advocate;
5. The aided person appoints another legal practitioner;
6. The aided person dies, except in civil cases
7. The proceedings amount to misusing the process of law or legal service.

3.1 Legal Aid under Criminal Procedure Code, 1973
Section 304

(1) Where, in a trial before the Court of Session, the accused is not represented by a pleader, and where it appears to the Court that the accused has not sufficient means to engage a pleader, the Court shall assign a pleader for his defence at the expense of the State.
(2) The High Court may, with the previous approval of the State Government, make rules providing for—
   a) The mode of selecting pleaders for defence under sub-section (1);
   b) The facilities to be allowed to such pleaders by the Courts;
   c) The fees payable to such pleaders by the Government, and generally, for carrying out the purposes of sub-section (1).
(3) The State Government may, by notification, direct that, as from such date as may be specified in the notification, the provisions of sub-sections (1) and (2) shall apply in relation to any class of trials before other Courts in the State as they apply in relation to trials before Courts of Session.

4. LEGAL AID AS PROVIDED IN THE CODE OF CIVIL PROCEDURE, 1908
4.1 Section 92 Public Charities

1. In the case of any alleged breach of any express of constructive trust created for public purposes of a charitable or religious nature, or where the direction of the Court is deemed necessary for the administration of any such trust, the Advocate –General or two or more persons having an interest in the trust and having obtained the leave of the Court may

institute a suit, whether contentious or not, in the principal Civil Court of original jurisdictions or in any other Court empowered in that behalf by the State Government within the local limits of whose jurisdiction, the whole or any part of the subject-matter of the trust is situate to obtain a decree:

a) Removing any trustee;
b) Appointing a new trustee;
c) Vesting any property in a trustee;
d) Directing a trustee, whose has been removed or a person who has ceased to be a trustee, to deliver possession of any trust property in his possession to the person entitled to the possession of such property;
e) Directing accounts and inquiries;
f) Declaring what proportion of the trust property or of the interest therein shall be allocated to any particular object of the trust;
g) Authorizing the whole or any part of the trust property to be let, sold, mortgaged or exchanged;
h) Settling a scheme; or
i) Granting such further or other relief as the nature of the case may require.

4.2 Order XXXIII. Suits by Indigent Persons

Rule 9-A. Court to assign a Pleader to an Unrepresented Indigent Person

1. Subject to the provisions of this Order, the Central or State Government may make such supplementary provisions as it thinks fit for providing free legal services to those who have been permitted to sue as indigent persons.
2. The High Court may with the pervious approval of the State Government, make rules for carrying out the supplementary provisions made by the Central or State Government for providing free legal services to indigent persons referred to in sub-rule (1), and such rules may include the nature and extent of such legal services, the conditions under which they may be made available, the matters in respect of which, and the agencies through which, such services may be rendered

5. ADVOCATES DUTY TO RENDER LEGAL AID

5.1 The Adovcates Act, 1961

Section 9-A constitution of legal aid committees

1. A Bar Council may constitute one or more legal aid committees each of which shall consist of such number of member exceeding nine but not less than five as may be prescribed.
2. The qualifications, the method of selection and the term of office of the members of a legal aid committee shall be such as may be prescribed.

6. PROFESSIONAL ETHICS

Rules Governing Advocates by the Bar Council of India

Section VI- Duty to render Legal Aid 46.

Every Advocate shall in the practice of the profession of law bear in mind that any one genuinely in need of a layer is entitled to legal assistance even though he cannot pay for it fully or adequately and that within the limits of an Advocate's economic condition, free legal Assistance to the indigent and oppressed in one of the highest obligations an Advocate owes to society.

Legal Services Authority Act, 1987; has pass by the Parliament for giving legal aid to the needy people. Almost 80% population of this country has come under the entitle of free legal aid Scheme. Various Authorities and Committees are constituted under this Act from trial Court to Apex Court.

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ISSUES AND CHALLENGES FACED BY EDUCATORS ON THE ONLINE PLATFORM DURING COVID-19, WITH SPECIAL REFERENCE TO INDORE CITY

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Abstract:- Today's everyone is facing a major problem in Covid-19, which allows each one to do work from home. Now the WFH is become the norm for the survival of human mankind, various government institutions and academic institutions had to shutdown temporary to stop the Covid chain. Thus various academic associations find the new alternative i.e. the Virtual and the online classes. In this present study, we attempt to find out the issues and challenges faced by educators on the online platform during Covid-19, with special reference to Indore City. This study follows primary data; questionnaire is formed by Google form with 43 items. This study considered responses from 200 teachers, professors from higher education, universities and schools. In this study factor analysis is used to find out the factors that are affecting in online classes.
Keywords: Educators, online mode, factors affecting, students.

1. INTRODUCTION

The effect of Covid 19 has been seen in many sectors and in many countries. Almost all the sectors are affected due to Covid. India is also affected by Covid in many ways and still, the problem is in continuation. Many sectors are badly affected by Covid and some of them were closed during lockdown due to heavy loss.

The education system is also badly affected by Covid 19. According to (UNESCO, 2020) around 320 million children have been affected in India alone. Almost all schools, colleges switch from regular offline classes to online mode without any prior groundwork they faced many problems because they are following the offline mode for a very long time.

From ancient times India believes that the best method to deliver education is the direct method of teaching in which there is a direct interaction between educator and student. Previously India was having a gurukul system in which students took knowledge from the great educators known by acharya for many years. The most popular gurukuls were Taxila and Nalanda.

With the evolution in civilization, learners became able to learn without going gurukuls. We had a long journey from gurukul to school. Blackboard to whiteboard, from whiteboard to laptop, and from Dakshina to fees.

With the advancement in technology and competition, the MHRD (Ministry of Human Resource Development) of India introduced many online learning programs like SWAYAM, SWAYAM Prabha, Diksha portal, e path Shala, National Repository of Open Educational Resources (NROER), etc.

The DIKSHA portal provides both educators and students and the learning material relevant to the prescribed school curriculum. E-path Shala is containing study materials that can be accessed on the Web and is available on Google Play, App Store, and Windows. For Higher education, also many programs were initiated by the government like Swayam and SWAYAM Prabha including engineering, humanities, and management courses for which e-books, online courses, and study materials resources are also available.

Hence, we can say that the Indian educational system initiated many online learning platforms and for many years they are planning to adopt online studies in the education curriculum but somehow it was not successful as expected because of the long belief of the students, parents, and educators towards offline teaching but because of the pandemic, we have no choice but to accept online teaching and learning schools and colleges are bound to shift towards the online mode of teaching.

Lockdown gave the opportunity to many online learning platforms to grow their business online. Some of them were already enjoying the profit but this is challenging for schools and colleges which are still working on the traditional pattern.

Online delivery of lectures without pre practicing and without having ground knowledge is a big problem the others problems are lack of technical infrastructure, digital divide, technical support, less interested students during class, low internet speed, sound

clarity, low attendance of students, etc. Education is a vital part of every country it helps in economic growth therefore effective teaching and learning both are important and it should not be ignored.

The purpose of this study is to identify the factors affecting online teaching to the educators (here the educators means teachers of school and professors of colleges), perspective of educators about the online classes, and challenges in front of the educators during lockdown from various schools and colleges from Indore so that it can help in improving the Online teaching experience of teachers and to identifies the solution to resolve this issue to improve the quality of education**.**

2. LITERATURE REVIEW

- Anna sunand Xiufang Chen (2019), the study investigate the impact of Covid-19 on education, the data are collected through structured questionnaire that consists of teachers, students, parents etc. The data are collected and analyzed using STATA/Regression. The factor analysis is used to determine the factors that affect the online teaching. This study shows that education activities are badly affected by the covid-10 pandemic lockdown. Job losses, in the education fields, laboratories, limited access to learning facilities etc. are the affects that degrade the quality of learning.
- Samta jain and Marie Lall, this study has brought us about the changes to the education system that impact teachers in many ways under the three gap framework i.e. access, usage and pedagogical skills gap. In this study structure questionnaire was developed to know the digital gap, the questions follows either the nominal or ordinal scale.
- Edeh Michale onyema, (2020), shows that the coronavirus pandemic increased the gaps in the education sector globally, the main objective of this study is to find out the impact of Covid-19 on education and shows the various challenges that affects during lockdown. In this study regression analysis and ANOVA is used and factor analysis are used to find out the factors that affect the education.

2.1 Background

From the Vedic period India used direct system of delivering education to the learner. This method is still used in schools and colleges. In ancient time's practical knowledge were also provided to the students. The period of learning was depending upon students. After that many evolutions took place in which notes, course books, blackboards, whiteboards were also becoming essential in learning.

However, innovations in educational delivery mechanisms have challenged this paradigm. The introduction of information technology changes the mode of delivery of knowledge from offline to online, from physical to virtual which gives the advantages to distance learning and online learning, time-saving, choices of choosing your educator, time shift, and many more.

The Indian education system also adopted the use of information technology in higher learning, conducting online exams, providing many online applications for distance learning, providing online study materials, etc. However, the importance of offline classes remains the same in many regions. They primarily adopt offline classes and only self-learners go for online classes.

After Covid 19 the only option left with many institutions and colleges is to go online which is to provide the online teaching-learning program to their students, but this is a challenge for many educators and students. To better understand how these learning technologies impact educator's perceptions of teaching, factors affecting educators in teaching, and positive and negative impact of teaching is well researched. The goal of this research is to better understand educator's perceptions of the effectiveness of these online teaching. In addition, this paper investigates the positive and negative impact of online learning and the problem faced by educators in accepting this during a lockdown.

2.2 Objectives

1. To find out the factors that affecting the online pedagogy of Covid-19 on educators in the Indore.
2. To identify the perspective of educators on virtual classes during the lockdown.

3. To identify the various challenges faced by the educators in online education during the COVID-19 lockdown.
4. To provide the possible solution and suggestion to improve online learning for educators.

2.3 Benefits of Online Teaching

Online teaching can connect an educator to the entire world. it also provides digital literacy which is necessary to survive in the competitive world. it also gives flexibility to the educator of time and place. It saves both time and travel expenses. Online teaching has no boundary an educator from any place can teach n number of students from different places in the world. Education is available to anyone, anytime and anywhere the only thing is required is an active internet connection.

3. IMPACT OF COVID-19 ON EDUCATORS

The educators from various schools and colleges are affected by the sudden transformation of the teaching method. Following are some problems and challenges faced by the educators in Indore:

3.1 Problems Factors of Online Teaching on Educators

1. Maximum students and educators belong to rural areas where the internet is the biggest issue.
2. The income of the educator is less but the expenses of online teaching are high.
3. digital divide
4. Lack of technical support, clarity and direction.
5. Lack of involvement and less interested students
6. External distraction and family interruption during teaching or attending lectures.
7. Online teaching requires time for the preparation of ppt.
8. It is difficult to measure the performance of the students during online class.
9. Stress level of educators during the classes.
10. Students do not find the session interactive because they prefer direct learning.

3.2 Following are the Challenges Faced by the Educators in Online Education during the COVID-19 Lockdown

3.2.1 Challenges

1. The biggest challenge in virtual teaching is to gain the student's interest. Postponed exams, general promotion, and open book exams are the main reason for student's carelessness towards teaching during the lockdown.
2. Practical subjects are difficult to explain in virtual classes it requires proper online infrastructure and study materials which is a challenge for an educator.
3. No background knowledge of delivering lectures online to the educator.
4. Assessment of students is very difficult and challenging because the teacher is not able to check the progress of the students.
5. When there is a lack of feedback from the student's sides then it is difficult to understand whether they are understanding or not.
6. For online teaching and learning, both students and educators need a proper internet connection, laptop, smart phones, etc., and as it's very costly therefore not everyone can buy it.
7. Due to indirect interaction with the students, it unbales a teacher to understand whether the student is understanding the topic or not, they also not sure that a student actively presents in the lecture or not, and thus it becomes difficult for the teacher to change the teaching pattern.
8. Less interested students, the declining number of learners in online classes, the pressure of work, family issues, etc are the main reason for the stress of the educators.

3.3 Scope: This Finding is Useful For?

1. **School Administration:** This study helps the school administration to understands the problem and issues associated with online teaching so that they can help the teachers. It can also help them to plan various training activities for the teachers.

2. **Government:** This study helps government to initiate an awareness program for online platforms available by the education department.
3. **Stakeholders:** It helps the stakeholder to build online infrastructure to provide study material and a platform that is effective for delivering a lecture.
4. **Management:** This study also helps the management to understand the condition and problems during online teaching by the educators so that they can change their policies accordingly.
5. **Learners:** Due to proper training and after resolving the issues related to the educators the lecture will become more interactive and effective which will give maximum result in learning.

3.4 How this Paper Helps the Society

- Youth is the future of every country therefore effective guidance to them is very important for any country.
- The youth after completing their course will serve the country in any way and improper and incomplete learning can become dangerous.
- This can also improve the number of self-learners especially those who completely depend upon the teacher.
- The government has started many free online courses then too many of the learners prefer offline learning but online learning will enhance the importance of this course.
- This will also help those who belong to a poor family who cannot afford costly education.
- With the help of this, we can easily identify the problem of educators in the online delivery of lectures during lockdown so that we can take action to resolve this issue.
- This will also helpful for the administration of schools and colleges.
  It also increases the number of learners who cannot arrange their time to study because of the responsibilities of their family.

4. RESEARCH METHODOLOGY

To analysis the impact on educators, primary data is to be collected through a structured questionnaire, which was developed to find out the results and conclusions. All the questions followed the Nominal and likert scale. To start with the questionnaire was forward in personal contacts and then snowball techniques are used to reach the potential users. This was to be done to reach the potential users and that's reducing the element of biasness.

A pilot study is conducted within few faculties which are taken from personal contact, they help a lot to check the reliability of the questionnaire. Based on their feedback the questionnaire was improved. The questionnaire was formed using Google form and the Google form link is shared with all the teachers in different schools, colleges and universities across Indore. All the ethical norms are duly followed the responded responses are kept secret.

Content validity is used to check the validity of the questionnaire, this helps to prepare a quality questionnaire which helps, and some questions removed some new questions added to make the questionnaire effective. Various stages were passed two HOD's separately check the content and draw some inference from this individually. This was done to improve the content and quality of the questionnaire.

Reliability Statistics
Table 01

Cronbach's Alpha	N of Items
.890	43

(Source: Researcher's Computation)

Cronbach's alpha helps to measure the internal consistency of items that used in data collection. It is to be measure the scale of reliability, how the reliable the data is. The value of cronbach alpha more than o.70 but less that 0.90 is considered good and less than

0.70 is not considering good. In this table cronbach alpha is highly acceptable, that the data is reliable.

KMO and Bartlett's Test
Table 02

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.813
Bartlett's Test of Sphericity	Approx. Chi-Square	609.068
	df	120
	Sig.	.000

The KMO Kaiser –Meyer – Olkin test is used to determine the sampling adequacy that is to be used for factor analysis. It may be noted that the value of KMO statistics is greater than 0.5, indicating that factor analysis could be used for the given set of data.

Communalities
Table 03

	Initial	Extraction
Lack of online support	1.000	.796
Unequal access for all students	1.000	.672
Communicate with proper volume	1.000	.648
Use different stratgies to motivate the students	1.000	.799
Easy to handle online apps	1.000	.714
Lack of students and teacher interaction	1.000	.730
Technical issues affects the flow	1.000	.765
Lack of IT skills	1.000	.722
Management support	1.000	.681
Financial growth	1.000	.755
Stress level of faculty increases	1.000	.843
Assessment of students is affected	1.000	.864
Quality of teaching is affected	1.000	.733
Students have less interest	1.000	.779
Concentration level of students are low	1.000	.851
students are facing network issues	1.000	.862

Extraction Method: Principal Component Analysis.

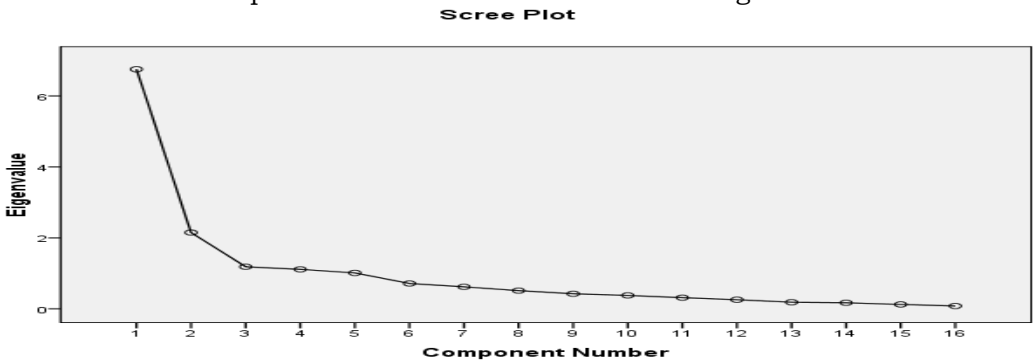
Total Variance Explained
Table 04

Component	**Initial Eigen values**			**Extraction Sums of Squared Loadings**			**Rotation Sums of Squared Loadings**		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.75296	42.206	42.206	6.753	42.206	42.206	4.8992	30.62	30.62
2	2.15025	13.439	55.6451	2.1502	13.439	55.645	2.1028	13.143	43.763
3	1.18598	7.4124	63.0575	1.186	7.4124	63.057	1.9987	12.492	56.255
4	1.11296	6.956	70.0135	1.113	6.956	70.013	1.6723	10.452	66.707

5	1.0128	6.32999	76.3435	1.0128	6.33	76.343	1.5418	9.6365	76.343
6	0.71466	4.46665	80.8101						
7	0.62018	3.87609	84.6862						
8	0.51314	3.20711	87.8933						
9	0.4248	2.65502	90.5483						
10	0.37824	2.36398	92.9123						
11	0.31556	1.97224	94.8846						
12	0.25675	1.60468	96.4892						
13	0.18583	1.16143	97.6507						
14	0.17117	1.06979	98.7205						
15	0.124	0.77501	99.4955						
16	0.08073	0.50453	100						

Source: Researcher's Calculation from Primary Data

As depicted from table no.04 there are five variables which have more than 1.000 Eigen value. The cumulative variance explained by these five components is 76.343%. Eigen values and associated components can further be studied through Cattell's Scree Plot.



Issues and Challenges faced by Educators on the online platform during covid-19,

The graph clearly demonstrates that there are five components which are more crucial for the respondents regarding Issues and Challenges faced by Educators on the online platform during covid-19,. The remaining variables also have exerted influence on the respondents but that is on a limited scale. The result of principal component analysis has further been analyzed through factor loading.

Rotated Component Matrixa
Table 05

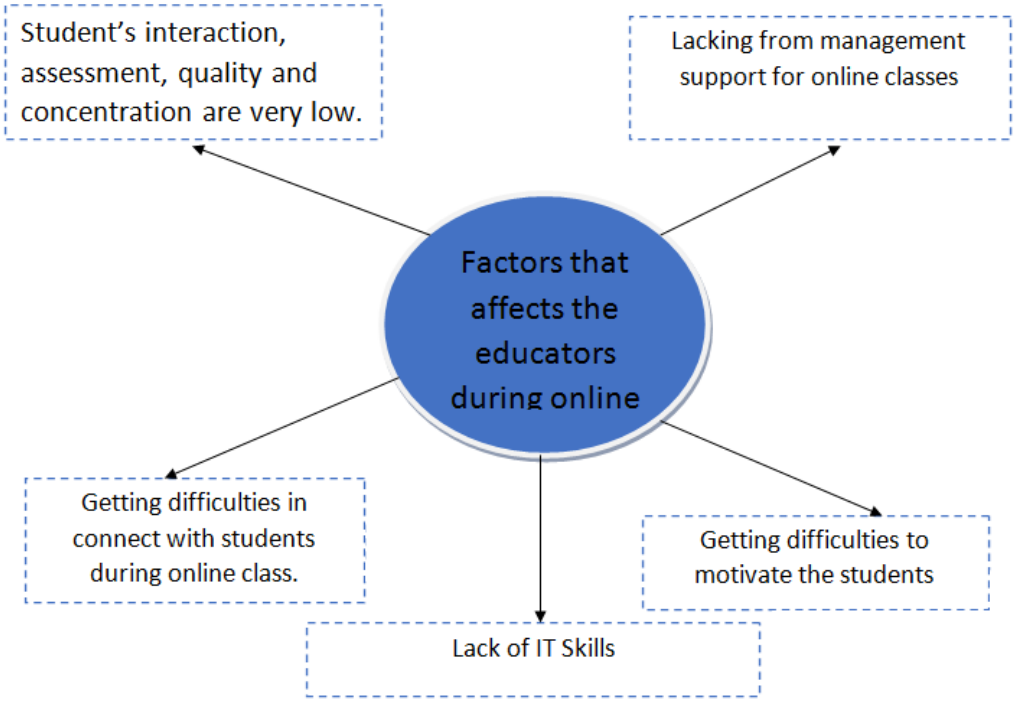
	Component				
	1	2	3	4	5
VAR00001			0.8377		
VAR00002	0.2708				
VAR00003			0.5421		
VAR00004				0.0838	

VAR00005		0.8181			
VAR00006	0.5193				
VAR00007				0.6189	
VAR00008					0.727
VAR00009		0.353			
VAR00010	0.6661				
VAR00011	0.6417				
VAR00012	0.8417				
VAR00013	0.839				
VAR00014	0.855				
VAR00015	0.764				
VAR00016	0.7186				

Extraction Method: Principal Component Analysis

Rotated component matrix reveals that out of total 16 variables four variables load highly onto one factor and remaining twelve variables load on two or more factors. The entire rotation process has been converged in eight iterations and has resulted into five factors. These factors may be summarized as follows:

4.1 The Five Factors



Component Transformation Matrix
Table 06

Component	1	2	3	4	5
1	0.805	0.2482	0.3418	0.2872	0.302
2	-0.358	0.7778	0.4448	-0.257	0.056
3	0.1508	-0.471	0.5837	-0.64	-0.066
4	0.4166	0.3135	-0.56	-0.629	0.136
5	-0.167	-0.114	-0.176	-0.213	0.94

4.2 Suggestion to Improve Online Learning for both Educator's and Learner's End

- Due to advancement in information technology most educators are having knowledge of online teaching but they don't know the process of effective pedagogy

during online teaching, they don't know how to interact with the students, how to engage them what are the tools we can use during online teaching; therefore, the proper training is required for the educators. Which must be conducted by the school or colleges in which the educator is working.

- Basic knowledge to use the online application to connect with the students is also required therefore before providing the training the foremost step is to train them or provide a short video to the educators. As many educators feel shy to ask the basic query especially the educators who are using traditional methods for many years.
- There is a lot of difference between virtual teaching and direct teaching, the methods tools, and resources are way more different than direct teaching therefore the understanding of virtual pedagogy is important.
- Identifying the interest area of students also helps the educators in teaching. The teacher also asks the students about their interest areas and according to that, they can bifurcate them and only teach those subjects which they want to study. With the help of this, only those lectures should be provided to the students for which he or she is interested so that the educator may gain proper attention and interaction of the students.
- Less interested students, the declining number of learners in online classes, the pressure of work, family issues, etc are the main reason for the stress of the educators therefore the recreational activities for teachers boost them to be motivated because only the motivated teacher can motivate the students.
- Once a week there should be a personality development session or recreational activity should be there to build interaction and a friendly atmosphere between teacher and students. It also helps to motivate students and teachers and remove stress.
- College and school can also create their application or software on which teachers can upload the study materials, recorded lectures.

5. FINDINGS

The findings revealed that Covid -19 has an adverse effect on education and it has a significant impact on educators from both the schools and colleges. there are many issues faced by the educator during online teaching the major issues were lack of technical support, internet issue, interruption by a family member during teaching, lack of training, lack of motivation, digital divide, etc maintaining interest and motivation of students during lectures, assessment of the progress of the student, lack of management support, creating online content, training of the educators are still challenges in education the major challenges is the resistance from educators to adopt online methods of teaching because educators feel that there is a lack interaction and of human touch in delivering the lecture which makes the lecture boring. Educators also believe that creating an e-contain requires lots of time and endeavour. However, the study also reviles that it provides an opportunity for the management to adopt blended learning methods which are important for the future to enhance the standard of teaching also digital literacy is important to survive in the competitive world and it connects us with the world. With the help of online teaching now education is available to anyone, anytime and anyplace.

6. CONCLUSION

The article has attempted to investigate the problems and challenges that teachers are facing towards online classes, the major concern comes here is that teachers pedagogy skills re not cater with the online or virtual classes. The picture that emerged is that even when teachers are digitally skilled, it does not mean that they have the know-how on how to teach online classes and prepare materials appropriate for online education. The sudden change from face to face to online classes hit them hardly, but to see the current scenario, this skills is now required for all aspects, they need to upgrade. The students and teachers have to upgrade themselves. There are various tools available online to upgrade us. The IT sectors also done tremendous work by providing this kind of platforms like Google meet, Zoom etc. Bit they need to work more an provide smooth software for teacher and students.

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COMPARATIVE ANALYSIS OF PERFORMANCE OF MUTUAL FUNDS: A STUDY OF PROMINENT MULTI CAP AND LARGE CAP FUNDS

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Abstract:- Mutual funds are one of the most appropriate investment alternatives for common investors. Mutual funds are professionally managed, transparent and affordable and offer wide range of schemes designed to achieve different investment objectives. Out of various schemes of mutual funds, equity funds are most popular among investors. Among equity funds, Multi Cap Funds and Large Cap Funds are the prominent categories for investors who want to benefit from equity investment by investing in a diversified portfolio of stocks. This study is an attempt to compare the performance of prominent multi cap and large cap funds based on returns generated by them. Performance of ten prominent funds under both the selected categories has been analyzed for this purpose over a period of five years. Their performance has also been compared against two most diversified benchmark indices of India i.e. BSE 200 and Nifty 500. Researcher has also tried to find out whether there is any significant difference in the performance of these funds or not.
Keywords: Mutual Funds, Large Cap Funds, Multi Cap Funds, Return, Risk, BSE 200, Nifty 500.

1. INTRODUCTION

With the constantly changing scenario of Indian capital market, avenues for investments in financial assets have changed drastically. In past, investors (particularly small investors) had limited investment options e.g. shares, bonds and debentures, post office deposits, and bank FDs etc. But in recent times investors have got lot more avenues for this purpose and mutual funds are one of them.

SEBI (mutual fund) regulations, 1993, define a mutual fund as "A fund established in the form of a trust by a sponsor to raise money by the trustees through the sale of units to the public under one or more schemes for investing in securities in accordance with these regulations"

In the current economic era, Indian mutual fund Industry has emerged as one of the most promising investment opportunity. Investment in financial assets has always been a matter of great importance in an investor's life. Every investor, no matter how small the savings are, wants to earn good amount of returns at a sustainable rate of risk. To substantiate the diversified financial goals of investors, variety of mutual funds schemes has surfaced out. It is important for both the investors and the fund managers to undergo rigorous and constant evaluation, with regard to the risk & return, of various schemes under purview. It enables the fund managers to identify strengths and weaknesses of these schemes, which help them to take improved decisions in future.

Mutual funds are categorized in various categories e.g. Large Cap Funds, Multi Cap Funds, Mid Cap Funds, Small Cap Funds, ELSS, Index Funds, Balanced Funds, Debt Funds and Liquid Funds etc. This study is about Multi Cap and Large Cap Mutual Funds. Both these fund categories are very popular among investors. However, an investor's orientation towards risk and return along with the duration of investment plays dominant factors to decide which cap to invest in. Generally, Investors with shorter time horizon, lower threshold towards risk and consideration for steady returns prefer to invest in Large Cap Funds. On the contrary, Multi Cap Funds are chosen by investors with relatively longer time horizon, higher risk threshold and so the potentially higher returns.

This research paper is an attempt to analyze the performance of prominent mutual funds under two important cap categories i.e. Multi Cap and Large Cap Funds based on returns generated by them over a period of five years. Their performance has also been compared against that of BSE 200 and Nifty 500. Researcher has also tried to find out whether there is any significant difference in the performance of these funds or not.

2. LITERATURE REVIEW

Large number of researchers and analysts have conducted various studies related to performance of various mutual fund schemes. Some important studies are mentioned below:

Rangasamy and Sathiya Priya (2017) conducted a study on performance evaluation of mutual fund schemes. The main objective of the study was to analyze the risk and return of the schemes and to evaluate the performance of equity, debt and balanced schemes of selected mutual funds using Treynor, Sharpe, Jensen measure etc. The study was an attempt to evaluate various mutual fund schemes with respect to four financial years (2012-2016).

Pandow (2017) conducted a study on Performance of Mutual Funds in India. The study advocates that the industry be confronted with number of challenges like low penetration ratio, lack of product differentiation, lack of investor awareness and ability to communicate value to customers, lack of interest of retail investors towards mutual funds and evolving nature of the industry. Based on the analysis, the study suggests that if the industry has to utilize its potential fully, it has to address these challenges.

Agarwal and Mirza (2017) conducted a study on the risk-adjusted performance of mutual fund industry in India. The research included measuring the performance of selected mutual schemes based on risk and return and comparing the performance of the selected schemes with benchmark index to see whether the scheme is outperforming or underperforming the benchmark. In addition, funds were ranked based on the performance and strategies were suggested to invest in a mutual fund.

Nandhini and Rathnamani (2017) conducted a study on the performance of equity based mutual funds (with special reference to equity large cap and mid cap mutual funds). The study focuses on the performance of selected equity large and small cap mutual fund schemes and they were analyzed with various risk return measurement tools such as alpha, beta, standard deviation and Sharpe ratio.

Damayanti and Cintyawati (2015) conducted a study which aims to determine factors that affect performance of mutual funds, especially equity mutual funds. There are several factors that are considered to affect the performance of mutual funds such as asset under management (AUM), fund age, past performance, asset allocation, turn of the year effect, equity funds with blue chip or non-blue chip stocks, equity funds owned by insurance or non-insurance companies, external factors such as the rupee against the US dollar (exchange rate) and investors behavior etc.

Husain and Sharma (2014) analyzed the performance of equity mutual funds industry against risk free rate and benchmark return over the period of five years. The risk return analysis revealed that out of 10 schemes 3 had underperformed the market while 7 were found to have lower total risk than the market and all the schemes have given returns higher than risk free rates. The result of regression analysis suggested that benchmark market index return has statistically significant impact on mutual fund return at 5% level of significance.

Choudhary and Chawla (2014) conducted research on the topic performance evaluation of mutual funds: a study of selected diversified equity mutual funds in India. Through this study an attempt has been made to analyze the performance of growth-oriented equity diversified schemes based on return and risk evaluation. The analysis was achieved by assessing various financial tests like Average Return, Sharpe Ratio, Treynor Ratio, Standard Deviation, Beta and Coefficient of Determination.

Narayanasamy and Rathnamani (2014) in their study focused on the performance of selected equity large cap mutual fund schemes in terms of risk- return relationship. The main objective of the research work was to analysis financial performance of selected mutual fund schemes through the statistical parameters such as alpha, beta, standard deviation, r-squared, Sharpe ratio etc.

Kumar and Kumar (2012) conducted a research with the prominent objective to determine the appropriate Benchmark Index that consists of appropriate asset classes of securities to pave the way for precise estimation. The study considers Tax Planning (Equity Linked Savings Scheme-ELSS) funds and selected indices of National Stock Exchange and Bombay Stock Exchange. The study reveals that broad based indices that consist of Large cap, Mid cap, and Small cap asset classes would be an appropriate benchmark for evaluating the performance of ELSS funds.

Philips and Kinniry (2010) conducted a research based on Mutual fund ratings and future performance. Their paper addresses two questions surrounding mutual fund rating systems. First, why index funds tend to receive an average rating based on relative quantitative metrics and second, whether a given performance rating offers actionable

information. Specifically, paper focused at whether higher-rated funds can be expected to outperform lower-rated funds in the future.

2.1 Objectives of Study

This study aims to judge the performance of prominent multi cap and large cap funds and compare the performance of these funds against that of two broad based benchmark indices. Based on this problem statement the following study objectives are as follows:
The following objectives:

1. To analyze the performance of prominent Large-Cap and Multi-Cap mutual funds
2. To evaluate the performance of prominent Large-Cap and Multi-Cap mutual funds vis-à-vis two benchmark indices i.e. BSE 200 and Nifty 500
3. To examine whether these funds are significantly different in terms of the return generated by them or not

3. RESEARCH METHODOLOGY

For the purpose of study, following 10 prominent mutual funds schemes under each category i.e. Multi Cap and Large Cap have been selected:

Sr. No	Multi Cap Funds	Large Cap Funds
1.	Canara Robeco Equity Diversified	Canara Robeco Blue Chip Equity
2.	UTI Equity Fund	Edelweiss Large Cap Fund
3.	HDFC Equity Fund - Growth Option	HDFC Top 100 Fund
4.	Mirae Asset India Equity Fund	Axis Bluechip Fund - Growth
5.	Aditya Birla Sun Life Equity Fund	Invesco India Largecap Fund
6.	ICICI Prudential Multicap Fund	UTI Master Share-Growth
7.	JM Multicap Fund	ICICI Prudential Bluechip Fund
8.	Kotak Standard Multicap Fund	Reliance Large Cap Fund
9.	Aditya Birla Sun Life Equity Fund	IDFC Large Cap Fund
10.	Franklin India Equity Fund	JM Core 11 Fund

BSE 200 and Nifty 500 have been chosen as the benchmark indices to judge the performance of the selected mutual fund schemes.

Relevant data have been collected through authorized websites for a period of five years ranging from January 2014 to December 2019.

3.1 Calculation of Return

For the purpose of this research work monthly return of each mutual fund scheme under study has been calculated. In order to calculate monthly return following two Net asset value of the fund is considered

- Opening NAV of the month and
- Closing NAV of the month

Formula for calculating monthly return:

$$\frac{(\text{Closing NAV of the month} - \text{Opening NAV of the month})}{\text{Opening NAV of the month}} \times 100$$

3.2 Calculation of Risk

Risk is calculated based on monthly return of the mutual fund scheme under study. Risk associated with mutual fund is calculated by using standard deviation as a Measure of risk. Total risk of a mutual fund scheme is measured by calculating Standard deviation of the monthly returns using the below mention formula:
Formula:

$$SD = \sqrt{\frac{1}{n-1}\sum_{t=1}^{n}(R_t - \bar{R})^2}$$

SD= standard deviation
n= number of monthly returns

R_t = monthly returns of the mutual fund
$\overline{R}$ = mean return of the mutual fund

3.3 Statistical Tests Used in the Study

In this study for the data analysis, Excel and SPSS software have been used. Descriptive statistics of all the variables have been presented. This study uses Kruskal Wallis Test for the comparison of mutual funds.

3.4 Hypotheses

Following are the hypotheses for the study:

- H_{01}: Selected Multi Cap Funds do not generate significantly different returns.
- H_{02}: Selected Large Cap Funds do not generate significantly different returns.
- H_{03}: Multi Cap and Large Cap funds do not generate significantly different returns.
- H_{04}: There is no significant difference between the returns of Multi Cap and Large Cap mutual funds, and that of benchmark NIFTY 500.
- H_{05}: There is no significant difference between the returns of Multi Cap and Large Cap mutual funds, and that of benchmark BSE 200.

4. RESULT ANALYSIS AND FINDINGS

Table 1: Return and Risk of Selected Funds (Monthly Calculation)

Sr. No	Mutual Funds	Average Return (%)	Total Risk (SD)%
Multi Cap Funds			
1	Canara Robeco Equity Diversified Fund	0.87	4.30
2	UTI Equity Fund	1.01	3.98
3	HDFC Equity Fund - Growth Option	1.02	4.88
4	Mirae Asset India Equity Fund	1.26	3.92
5	Aditya Birla Sun Life Equity Fund	1.24	4.39
6	ICICI Prudential Multicap Fund	1.14	3.82
7	JM Multicap Fund	1.09	4.76
8	Kotak Standard Multicap Fund	1.21	4.03
9	Aditya Birla Sun Life Equity Fund	1.24	4.39
10	Franklin India Equity Fund	1.13	3.75
Large Cap Funds			
1	Canara Robeco Blue Chip Equity Fund	0.86	3.92
2	Edelweiss Large Cap Fund	0.95	3.89
3	HDFC Top 100 Fund	1.03	4.64
4	Axis Bluechip Fund - Growth	1.00	3.89
5	Invesco India Largecap Fund	0.95	3.75
6	UTI Master Share-Growth	0.82	3.64
7	ICICI Prudential Bluechip Fund	1.05	3.76
8	Reliance Large Cap Fund	1.18	4.27
9	IDFC Large Cap Fund	0.81	3.67
10	JM Core 11 Fund	1.07	5.82

Source: These are the results based on calculations with the help of monthly data for the selected time period (January 01, 2014 to December 31, 2019)

4.1 Interpretation

It is clear from the Table 1, that maximum average annual return in Multi Cap category has been generated by Mirae Asset India Equity Fund (15.12%) while minimum return has been generated by Canara Robeco Equity Diversified Fund (10.44%).

In Large Cap category, maximum average annual return has been generated by Reliance Large Cap Fund (14.16%) while minimum return has been generated by IDFC Large Fund (9.72%). Other funds in each category have given a return between the

mentioned maximum and minimum values. These returns are good from any perspective. But at the same time, we shouldn't overlook the fact that there is a risk associated with these returns.

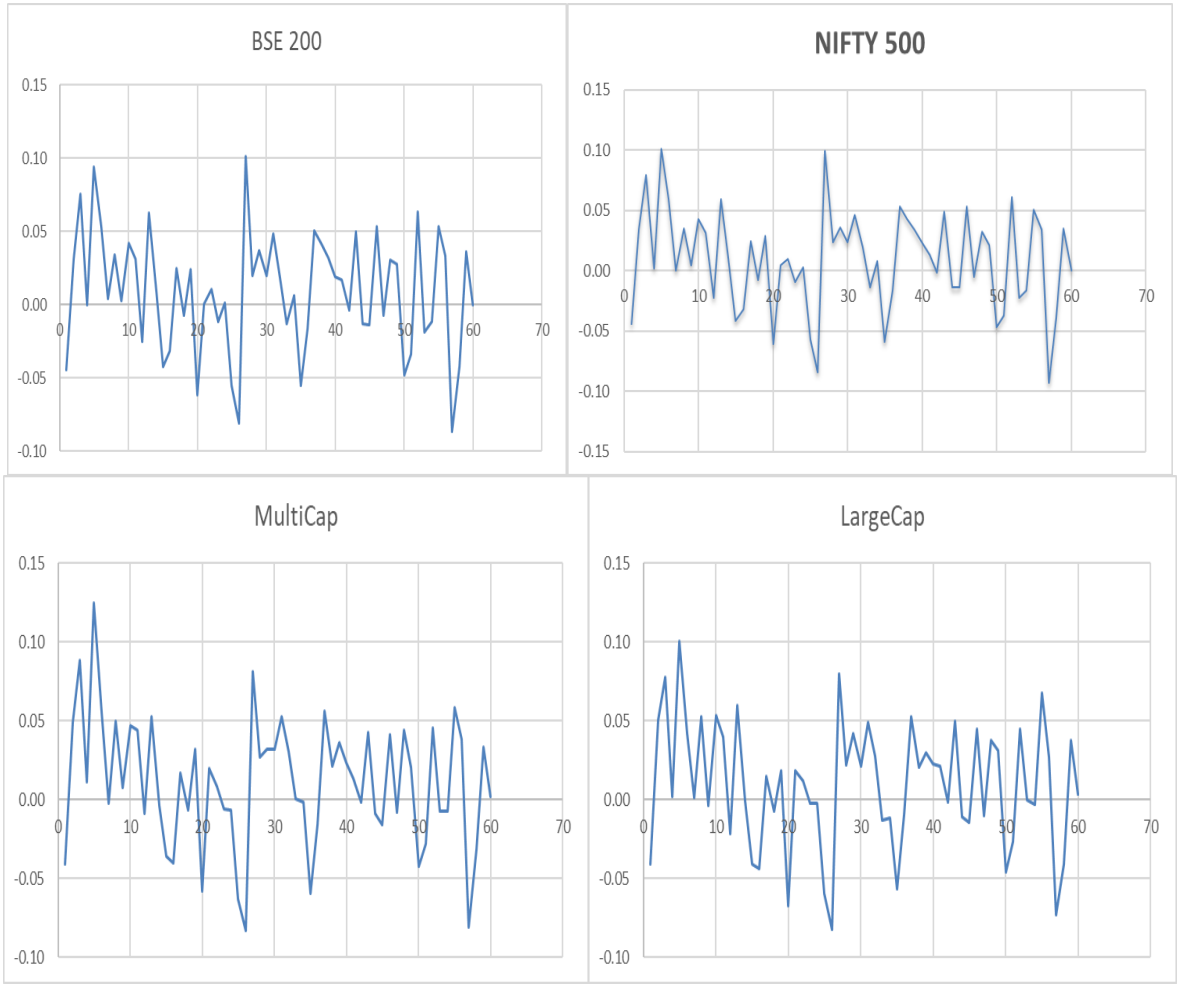

Figure 1: Monthly average returns of NIFTY 500, BSE 200, multi cap mutual funds & large cap mutual funds

Table 2: Descriptive Statistics of Multi Cap and Large Cap Mutual Funds

AMC		**ALC**	
Mean	1.119933239	Mean	0.971223614
Standard Error	0.528458551	Standard Error	0.515306678
Minimum	-8.299512227	Minimum	-8.231407745
Maximum	12.47133963	Maximum	10.04124032
Sum	67.19599434	Sum	58.27341683
Count	60	Count	60

Table 3: Descriptive Statistics of Two Benchmar Indices i.e. NIFTY 500 & BSE 200

NIFTY 500		**BSE 200**	
Mean	0.916050632	Mean	0.890394425
Standard Error	0.532923657	Standard Error	0.521654236
Minimum	-9.29217849	Minimum	-8.649465301
Maximum	10.08907144	Maximum	10.12240816

Sum	54.96303794	Sum	53.42366553
Count	60	Count	60

Kruskal wallis test is applied to test whether there is significant difference within the ten Large Cap and ten Multi Cap mutual funds or not in terms of returns generated by them.

Table 4: Large Cap Mutual Funds

SUMMARY

Groups	Count	Sum	Average	Variance
Canara Robeco Blue Chip Equity Fund	60	51.89233	0.864872	15.33711
Edelweiss Large Cap Fund	60	57.05623	0.950937	15.11978
HDFC Top 100 Fund	60	61.94614	1.032436	21.57991
Axis Bluechip Fund - Growth	60	59.92729	0.998788	15.08373
Invesco India Largecap Fund	60	56.99951	0.949992	14.09595
UTI Master Share-Growth	60	48.5027	0.818378	13.23764
ICICI Prudential Bluechip Fund	60	62.98096	1.049683	14.10872
Reliance Large Cap Fund	60	70.54208	1.175701	18.23794
IDFC Large Cap Fund	60	48.5027	0.808378	13.43764
JM Core 11 Fund	60	64.38423	1.07307	33.85397

Kruskal-Wallis Test

Ranks

	Groups	N	Mean Rank
Return	1	60	295.70
	2	60	303.74
	3	60	299.67
	4	60	300.78
	5	60	301.06
	6	60	295.66
	7	60	305.58
	8	60	306.69
	9	60	295.66
	10	60	300.47
	Total	600	

Test Statistics[a,b]

	Return
Chi-Square	.293
df	9
Asymp. Sig.	1.000

a. Kruskal Wallis Test

b. Grouping Variable: Groups

4.2 Interpretation

From the Tables 4, & 5 it can be seen that within the categories of cap mutual funds (i.e. large cap & multi cap) there is no statistically significant difference in return generation, i.e. all the mutual funds under these categories generate more or less same return.

Table 6: Multi Cap & Large Cap Mutual Funds

Kruskal-Wallis Test

Ranks

	Groups	N	Mean Rank
Return	1	60	61.02
	2	60	59.98
	Total	120	

Test Statistics[a,b]

	Return
Chi-Square	.027
df	1
Asymp. Sig.	.869

a. Kruskal Wallis Test

b. Grouping Variable: Groups

4.3 Interpretation

From Table 6, it can be seen that between the categories of cap mutual funds (i.e. large cap and multi cap) there is no statistically significant difference in return generation. In other words we can say that both these categories are more or less same in terms of generating returns.

Table 7: Comaprision of mean return of the NIFTY 500 and Large Cap Mutual Funds

Kruskal-Wallis Test

Ranks

	Groups	N	Mean Rank
Return	1	60	60.44
	2	60	60.56
	Total	120	

Test Statistics[a,b]

	Return
Chi-Square	.000
df	1
Asymp. Sig.	.985

a. Kruskal Wallis Test

b. Grouping Variable: Groups

Table 8: Comaprision of mean return of the NIFTY 500 and Multi Cap Mutual Funds

Kruskal-Wallis Test

Ranks

	Groups	N	Mean Rank
Return	1	60	59.82

	2	60	61.18
	Total	120	

Test Statistics[a,b]

	Return
Chi-Square	.046
df	1
Asymp. Sig.	.830

a. Kruskal Wallis Test

b. Grouping Variable: Groups

Table 9: Comaprision of mean return of the BSE 200 and Large Cap Mutual Funds Kruskal-Wallis Test

Ranks

	Groups	N	Mean Rank
Return	1	60	59.98
	2	60	61.02
	Total	120	

Test Statistics[a,b]

	Return
Chi-Square	.027
df	1
Asymp. Sig.	.869

a. Kruskal Wallis Test

b. Grouping Variable: Groups

Table 10: Comaprision of mean return of the BSE 200 and Multi Cap Mutual Funds Kruskal-Wallis Test

Ranks

	Groups	N	Mean Rank
Return	1	60	59.42
	2	60	61.58
	Total	120	

Test Statistics[a,b]

	Return
Chi-Square	.116
df	1
Asymp. Sig.	.733

a. Kruskal Wallis Test

b. Grouping Variable: Groups

4.4 Interpretation

From the Tables 7, 8, 9, and 10, it can be seen that at 5% level of significance the p-value is greater or equal to 0.05, therefore we accept null hypothesis and conclude that there is no statistically significant difference between mean returns of NIFTY 500 and Large Cap or Multi Cap mutual fund returns, and BSE 200 and Large Cap or Multi Cap mutual fund returns.

5. CONCLUSION

The study reveals that the mutual fund schemes under both the categories i.e. Multi Cap Funds and Large Cap Funds have generated good returns over the period and that too with a reasonable risk. Therefore, it is very safe to conclude that they are good investment option for an investor.

In terms of performance of these mutual funds, the average monthly returns generated by the funds in each category are numerically different, but this difference has not been found statistically significant (on applying Kruskal Wallis Test). As categories also, no statistically significant difference is observed between the means of average monthly returns of funds of multi cap and large cap categories. At the same time, there is no significant difference between these funds and NIFTY 500 as well as these funds and BSE 200 in terms of their returns.

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REALITIES AND EXPECTATIONS IMBALANCE- THE PALACE OF ILLUSIONS BY CHITRA BANERJEE DIVAKARUNI

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Renowned novelist Chitra Banerjee Divakaruni has put forth the truth of life in her novel The Palace of Illusions, which is based on famous Hindu epic Mahabharata. She depicts that how the present generation man and woman expect something from their life and their life's reality comes out something different. Only few personas get what they desire. People escape from life's truths and keep living into a palace of illusions, made by themselves. When this mirror palace shatter, they get disappointed. Divakaruni through her protagonists, wants to preach, to face their reality to get a desired life. Through the story of Draupadi the novelist describes that we all have convictions about ourselves that can transform into assumptions about a sought result. When we face an undesired result, we feel shocked, disillusioned or disappointed in light of the fact that our expectations have undermined our convictions and sometimes they become detrimental in leading a normally acceptable life. When women feels that their male counterparts are not fulfilling their expectations, they become feminist and starts longing their liberty from their heterosexual counterparts. They forget that escape is not the actual solution of their difficulties. Post Feminist thinkers opines the same, that solution is something different. Divakaruni's novel The Palace of Illusions also portrays her woman protagonist so dissatisfied and disenchanted with the socially acceptable attributes. Such constraints on their wings do not let them take a fight or even sometimes uproot themselves terribly and unexpectedly against her anticipated comfort zones. This paper studies the solutions for emotional wellbeing of present generation man and woman.

Keywords; Realities and Expectations, The Palace of Illusions, Desires, Reality, Post-feminism, Man-woman relationship.

"If you expect nothing from somebody you are never disappointed."

This above written line by Sylvia Plath is taken from her novel The Bell Jar. This line clarifies the result of expectations or desires from others in one's life. A desire is an idea, longing, illusion or a firm belief which is about our inherent urge, which is not really about what may truly happen. Women mostly get stuck at the receiving end of disappointment for they are not allowed to fulfill their dreams. Their female social peers in the influence of customized traditions do not let any aberration or subversion, while their male counterparts, as usual, depend for their daily needs on family and on females. Men do not find easy to accommodate with any of their female counterpart's subversion or being an aberration in the family.

The women of Indian subcontinent more or less have common dreams and desires; each one of them primarily wishes to have an ideal family of their own. She wishes to have caring parents and a supportive family and hopes that her every dream and ambitions are fulfilled by the unconditional support of her family and the society, where she lives before her marriage. After her marriage, she yearns too much from her husband, her in-laws, and her in-law's society. Unfortunately, the reality is ironical to their expected dreams; she is seldom motivated and encouraged for her efforts in achieving her goals and mostly gets a second-grade treatment compared to her male siblings or counterpart due to gender discrimination practiced by the society.

When women feel that their male counterparts are not fulfilling their expectations they become feminist in their thinking and start desiring for their liberty from their heterosexual counterparts. They forget that escape from their male counterparts is not the actual solution of their life's difficulties. Women must become self-reliant and stops expecting from their counterparts. Men and women must not bind each-other in stereotypical roles. They must give each other freedom of action and thought. They must respect each-others differences and must accept and adjust with each-other for a complete, happy and meaningful existence. Post feminist Singh opines the same and says that: "Post-feminism is the acknowledgement and management of individualities and differences" (Singh, Kanwar 21). When women don't stop depending on others, they face disillusionment in their life and repent later because they don't get expected, dignified existence.

When she realizes that the world around her is not the one she deserves and wishes for, she tries her best to cope with it. She even tries to follow the rules of gender-essentialism that refer to the attribution of a fixed essence to a woman. Some women succeed in overcoming their obstacles by finding an inner solution to face external circumstances. They make their individual and a distinct place in the society through their virtues, strengths, hard work, and dedication, but not all of them are so lucky. Most of the women find their wishes and desires buried under a heap of responsibilities, that are imposed on them merely because they are females and are supposed to do what they are expected to do. There are uncountable and unbelievable hindrances for women, such as the prevalence of the stereotypical myths of maintaining their virginity at all costs, to be soft-spoken, obedient and never to raise their voices against injustice.

The unavoidable restraints condition woman's desires and dreams. In return, the woman compensates her desires with devotion to family needs. If she attempts to deviate herself from familial situations, then her illusionary individual being, catches the desired expectations. In reality, they remain dependent on others that's why they never get their desired solace, freedom, existence and meaning in life. Beauvoir also describes an ideal woman's gender role to achieve her existence in her renowned book The Second Sex that: "The emancipated woman…refuses to confine herself…woman is a complete individual." (Beauvoir 682). Beauvoir emphasizes the need for individuality and independence to get self-existence and identity in one's life. Divakaruni also presents the fact that a woman remains dependent mostly on other men or women. This becomes an illusion when the reality deprives her of possession and relations, leaves her unrecognized, valueless and as secondary being.

Chitra Banerjee Divakaruni's novel present disgruntled and dispossessed woman protagonist. She portrays her woman character, who inherently feel dissatisfaction and disenchantment with the socially acceptable attributes. Such constraints on her wings do not let her take a flight or even sometimes uproot her terribly and unexpectedly against her anticipated comfort zones. This paper studies the predicaments of the protagonist and the reason of her perplexity as a tragedy to understand her hamartia for a life lesson for present generation. The analytical observations are taken from the life of woman character illustrated descriptively in Divakaruni's novel- The Palace of Illusions.

The Palace of Illusions by Divakaruni represents allegorically Draupadi- a renowned woman from Indian epic The Mahabharata as a mythically pre-destined woman who thrives on seeking vindication of her existence. Indeed, the novel wonderfully investigates the character of legendary courageous woman Draupadi. Told from the individual perspective, the novel reproduces the mythical Draupadi as a human and as an earthly being. The Mahabharata is an epic narrative of Kurukshetra war, which was caused due to the rivalry between the two branches of Kuru dynasty- the Pandavas and the Kauravas for the throne of Hastinapur.

Divakaruni in The Palace of Illusions considers Draupadi's character with a specific goal to gauge the thought process of Draupadi and her psyche that was not given much importance in the epic. Divakaruni picks up the neglected psyche of woman's individuality as the center point of critical reinterpretation with reference to the sage Vyasa's interpretation and delineation of the character Draupadi. Simone De Beauvoir while allegedly arguing the historicity of women's image says that: "History has shown that men have always held all the concrete powers; from patriarchy's earliest times they have deemed it useful to keep woman in a state of dependence; their codes were set up against her; she was thus concretely established as the other" (Beauvoir 193). Divakaruni reframes the legendary epic women characters and tries to present them as a subject to determine their perspective and perception. The novel The Palace of Illusions attacks the stereotypical pattern of understanding, framing and visualizing women. Divakaruni expresses her point in the creator's note to the novel that:

Always listening to the stories of The Mahabharata as a young girl…I was left unsatisfied by the portrayals of the women. It wasn't as though the epic didn't have powerful, complex women characters that affected the action in major ways…If I ever write a book, I remember thinking…I would place the women in forefront of the action…the uniquely female way in which she sees her world and her place in it…And who could be better suited for this than Panchaali? (The Palace of Illusions Author's note xiv-xv)

Divakaruni allegorically reshapes Draupadi or Panchaali's life to uncover all her delights and questions, her battles and her victories, her heart breaks, her distresses, and her accomplishments. Divakaruni does the psychoanalysis of Draupadi in the novel by retelling the saga of Draupadi's life in her own voice with the help of first person narrative. Erich Fromm rightly says: "Psychoanalysis is essentially a theory of unconscious striving, of resistance, of falsification of reality according to one's subjective needs and expectations" (Fromm).

From the epic narrative- The Mahabharata, we have heard that Draupadi was the daughter of King Drupad and the wife of five Pandavas. The character of Draupadi in The Mahabharata was fundamentally portrayed with her agitation against set patterns and prejudices. Her destiny imbibed challenges that induced Kurukshetra war. The subject of inquiry in this thesis is in relation to Panchaali's concerns, courage, constraints, condition, conduct, and crossroads that causes her to release her strong and violent force in seeking vindication of her honour on one hand, while on the other hand, the subject of inquiry unleashes social restraints on the patriarchy to restrict woman's independent existence.

Divakaruni presents Draupadi's birth to the world in the beginning of the novel. She emerges out of the pious Yagya fire which her father King Drupad enlightens with a month's tough fasting in the palace of his kingdom Panchaal. Drupad wishes for a son as a boon to save his kingdom from his enemies. When Draupadi comes out of the fire, she feels that her father King Drupad wants just her brother, who has also come out of the fire with her. The author speaks her thoughts in these words: "It was only my brother he meant to raise up to show to his people. Only my brother that he wanted. Dhri wouldn't let go of me, however, nor I of him. We clung together so stubbornly that my father was forced to pick us both up together" (TPI 06).

Draupadi feels suffocated in her father's palace because there she is always sidelined due to prejudices and biases. Dhai Ma (Draupadi's caretaker woman) teasingly calls her "the Girl Who Wasn't Invited" (TPI 01). Draupadi has been assumed as a responsibility which needs to be borne, instead of being welcomed and appreciated. Despite the fact, that she has been given all sorts of the comforts and delights. However, she doesn't utilize them for they were all shallow for her. She is denied of a 'character' and 'meaningful identity or existence,' which she desires the most from her society.

This can be seen from the name, that she is given. Her brother has a particular purpose to fulfill for Drupad, Her brother is to deliver a vengeance for his father against a fierce warrior Drona, the mentor of Kauravas and Pandavas. That's why he is attentively named "Dhristadyumna" (the destroyer of foes) by Drupad; while Draupadi's birth and its goal remain hidden to Drupad, so she is mere like one among the numerous little girls of King Drupad. That's why she is carelessly named "Draupadi" (the girl of Drupad) by her father which signifies her being the inheritor of her father's genes. Draupadi examines her name and says: "But Daughter of Drupad? Granted, he hadn't been expecting me, but couldn't my father have come up with something a little less egoistic? Something more suited to a girl who was supposed to change history?" (TPI 05). Draupadi thinks that in-spite-of the oracle forecast at the time of her birth, her father has taken her for granted. The forecast declares- "Behold, we give you this girl, a gift beyond what you asked for. Take good care of her, for she will change the course of history" (TPI 05). Draupadi feels special because she is informed that her life purpose is to change history. Divakaruni here presents the biased treatment of Indian parents towards their girl child. Hajra Kumar states: "The female child is considered a liability for the parents who are influenced by the traditions, values, social norms and a social institution like family, kinship, and marriage" (Kumar and Varghese 194).

Female children who remain devoid of the parental love start making an illusionary world around them to survive themselves with the contrasting reality of their life. They start escaping from the reality and with the help of their false predeterminations about their life they try to maintain their self-respect. By going into a dream world of their desires, they try to save themselves from going into a mental regression. Draupadi of the novel The Palace of Illusion also reflects the same crisis and complex structure of the position and phases of life as- a girl child, daughter, woman, the wife, and the mother.

The feminist author of the novel makes Draupadi compare her name with other historically known names of the females. The novelist feels that her introduction to the world additionally has a positive significance. She is a lady, who influences history with her

identity. She should be known with a different identity and a courageous name– something like "Off-spring of Vengeance, or the Unexpected One" (TPI 02). Draupadi's revaluation of her name by herself presents her discontent and dissatisfied nature. The partial treatment by her father towards her occupies her mind with a longing to prove herself capable, and desirable to all. She dismisses to be taken as granted by anyone. She decides to struggle for a meaningful independent identity, which is indeed a desire, an expectation against regressive patriarchal traditions.

One day Draupadi gets a piece of news from her attendants that a sage, a foreteller has come to Panchaal. Due to her curious and conscious nature, Draupadi wants to inquire about the oracle announced at the time of her birth. She disguises herself as a maid servant and goes to meet the prophet. The prophet recognizes Draupadi and foretells her future with the help of supernatural spirits that he calls upon. The spirits tell Draupadi that:

You will marry the five greatest heroes of your time. You will be queen of queens, envied even by goddesses. You will be a servant maid. You will be mistress of the most magical of palaces and then lose it. You will be remembered for causing the greatest war of your time. You will bring about the deaths of evil kings - and your children's and your brother's. A million women will become widows because of you. Yes indeed, you will leave a mark on history. You will be loved, though you will not always recognize who loves you. Despite your five husbands, you will die alone, abandoned at the end – and yet not so. (TPI 39).

Draupadi is awed after listening about her horrible future of marrying five men and causing destruction through war, she starts feeling sad. When the sage finds Draupadi feeling sad after knowing her future, he gives Draupadi a new name. He says: "From now on you'll be known as Panchaali, spirit of this land" (TPI 41). Draupadi feels elated after getting a desired and meaningful name. She says: "Each night I thought of my name. Already I'd insisted that everyone address me by it- 'Princess Panchaali.' I would always thank the sage for giving it to me." (TPI 42) Her excitement after getting a new name 'Panchaali' signifies her inherent sense of equating herself as a native of Panchaal, whose existence metaphorically relates with the possession of Panchaal. She thinks herself as equal as other inhabitants of Panchaal. She then no more is a subsidiary, secondary, or subordinate being of Panchaal, thereafter she comes to be popularly called with the tag- 'Princess Panchaali.' The writer carves out "social and cultural typologies from Indian classics" and reframes Draupadi's metaphysical interrogation with regard to freely woven spirit just like the women characters shaped in Oriental literature as well (Narasimhaiah 71).

Secondly, the author makes the historical or cultural experience of a woman named Draupadi or Panchaali as a transcendental signifier in the postcolonial context of the psychosocial practices and dynamics of cultural ecological internal and external adjustments. The novelist projects increasing consciousness of a woman who feels how she has been used by the physical-cultural environment that is a threat to her quest for identity. Basically, the novelist wants to portray through historical realism, through the annotations of magic realism and the notion of supernaturalism with regards to the existence of a woman in society. This cultural tradition has been through ages carried forward in an anthropological and etymological sense in the generation after generation, following religious and mythical structures to have cultural perspective about women. The author attempts to identify the same with the image of Draupadi who seems to interrogate the same. But Chitra Divakaruni very carefully also implicitly motivates the reader to discover cultural and historical phenomena concerning woman's identity. It is apt to quote Lanternari that the use of supernaturalism to revive a discourse, in a global context is phenomenological "a comparative study of beliefs and rites, such as god's sacrament and sacrifice, to determine their meaning and social significance" (quoted in Pandian 69).

Panchaali and her caretaker Dhai Ma takes that prophet and his prophecy as a fake because he foretells about Panchaali's marriage with five men and that is an impossible task for a woman of that time. Dhai Ma says: "Now I know he's fake! Why in all my years I've never heard of a woman with more than one husband!" Panchaali also ignores the prophecy and accepts Dhai Ma's point of view that the prophet is a fake. Panchaali thinks: "I hoped she was right. If that part didn't come true, then perhaps the others wouldn't either" (TPI 42).

The life journey of Panchaali signifies her pre-determinations, enthusiasm, and longings, that makes her unusual from the rest of the females of Indian literary history. In anticipation of her known future, she is destined to change history; she wants to do it in her own particular manner and not in a foreordained way. She wants that no one else should decide her way of reaching to her destiny. In Divakaruni's The Palace of Illusions, Panchaali assumes control over her subjectivity and neglects to be a mere object in others eyes. She fights against the biased Indian society and against the reality of social attributes. She wants to actualize her individual capacity through her boldness and her argumentative mannerisms. She gets herself conditioned against the system of patriarchy, which is in itself a bold step to come out of her fragile periphery which was in control of patriarchy and its norms.

Divakaruni here presents the impact of the bias treatment against women in India. In consequence, to that, a woman feels marginal and that's why she craves for irredeemable things in her life to convert her marginality into an individual identity or to convert her wishes into reality. She focuses on breaking the shackles of conventions and confinement to raise her self-capacity and to get her identity. Her irresistible desires are a bone of contention and contestation throughout her life; she faces negation, denial, restriction, violation in the volatile world of men and his traditions.

Panchaali struggles to write her own fortune in her own way and develops several alternates in her life to forget her sorrows. She tries to adopt different methods to achieve meaningfulness in her life. A. R. Bharati also quotes about Divakaruni's women protagonists that: "These women characters change identities many times to arrive at the final destination of their selfhood. These women evolve different strategies to assert their individuality and act independently with a sense of freedom and conviction" (Bharati, A. R. 27).

Panchaali's wheatish complexion since her birth is mostly considered worthless for young ladies in India. That's why she underestimates herself in the beginning. She assumes that because of her complexion, she is not taken to be with pride by others. Her friend Krishna (King of Yadu dynasty) himself has swarthy complexion and he makes her understand the essentials to forget the body as an ideal of expectations. He inspires her that, she must think about the formation of her individuality. Panchaali then changes into a confident woman. Krishna preaches Panchaali that: "A problem becomes a problem only if you believe it to be so. And often others see you as you see yourself" (TPI 09). Panchaali takes Krishna as her friend and surprised by his puzzling but meaningful preaching. She confesses: "I was fascinated by Krishna because I couldn't decipher him" (TPI 11).

The accompaniment of Krishna in Draupadi's life turns out to be an inversion to self-realize herself. Through Krishna's inspiration, Panchaali begins understanding her excellence. Later she demands from her father that she should be also educated like her brother Dhri (Dhristadyumna). Divakaruni attempts to intrude in the prevailing myth that the women don't focus on their individual strengths, their secondary conceptions become their behavior which ultimately defines their organic wholeness or self. Chitra Divakaruni documents "ethnography of Hinduism, the mythical connectedness of supernaturalism and self-formulations" (Pandian 70). Panchaali initiates to learn all the prevalent arts and crafts to change the history. Her deviance from tradition becomes a symbol of change in history and she takes control of autonomous reality of social construction of womanhood. She imagines: "Panchaali the Peacemaker, people would call me" (TPI 66). Ironically Panchaali's imagination of being a peacemaker with such manifestations serves as a vehicle to threats and chaos in patriarchal realities of society.

When Krishna, a good friend of her father Drupad tells him to let Panchaali be trained and educated as she is an extraordinary woman, then only her father Drupad allows her education with her brother Dhri. Divakaruni here points out that the women's education till date is a dark zone in the development of India. She also draws our attention on the Indian patriarchal society's partial law about girl education. She presents that due to customized prevalent myths relating to women, they are not treated with equality and dignity. According to Orthals, there are many reasons behind, why women are not allowed to get an equal education as men in India. He says that: "Cultural practices obstruct women's education. The example of marriage serves as one illustration of cultural constraints...Indian tradition dictates that husbands should be older and more educated" (Orthals 81).

Panchaali becomes an exception amongst other girls in Panchaal because she attains the knowledge of martial arts and armory, which is men's specific field. Her own loving and old caretaker Dhai Ma critically looks down her being educated equally with her brother and says that Panchaali's lessons have made her "too hardheaded and argumentative, too manlike in speech" (TPI 23). Divakaruni presents a woman's gaze towards another woman in India. Panchaali has been a decisive young lady and on grounds of humanistic notions, her choices start to define her individuality. Divakaruni presents the trauma of an author and of an Indian woman whose individual experiences in support with the evidence of historical references combines thinking about education and knowledge. The author reflects upon the traumatic baggage of inequality in the opportunities of women education, the notion of "power and representation challenges the conceptualization of critical literacy" (Andreotti 01). The author through this context in Draupadi's mind manifests resilience against stereotypical social, cultural, historical, religious impositions, that restrict self-awareness and self-reflexivity by women and for a woman and from a woman.

The communication between Draupadi and her old caretaker- Dhai Ma, paradoxically presents the matrix of the relationship between education, power and the position of justice that attempts to indoctrinate or paralyze the notion of education, knowledge, and independency as a morally justifiable path in the context of women's education. The author through all this conversation and pressure on Draupadi questions the sense of social justice inter-dependence and responsibility for themselves and towards the world. As readers, we find novelist's discursive radicalism, who through the dialogue attempts to interrogate or problematize "ethical model for the representation of cultures and nationalist narratives" (Parry 10). From the view of the post-colonial category, this narrative posits Draupadi as an agency of insubordination, who constitutes contention regarding self-consolidating instead of sharing a concern with the specific historical conditions and social purposes of ideological representation.

Draupadi is not a submissive personality like Sita and Savitri of Indian History. She has a concept in her mind that earning knowledge and education will enable her to change the course of history. At one point when Dhri's coach criticizes about the incautious ways of Panchaali and suggests her to remain in the commonplace that is expected from a lady in a man's life, she answers: "And who decided that a woman's highest purpose was to support men . . . A man, I would wager! Myself, I plan on doing other things with my life" (TPI 26).

Divakaruni's Panchaali asserts that she has a right to her life and she has imagined that she will be the leader of her own life. Panchaali is not allowed to participate in other masculine discourses with her brother during the debatable discourses with Dhri's teacher. All the women are afraid of Panchaali, due to the forecast at the time of her birth that she will bring change on account of her over ambitious nature. Panchaali feels deprived of love and affection from her parents and her society. She suffers aloofness, marginality, and alienation and that's why she starts to build a dream for life after marriage. She decides that a male who will be marginal and subversive like her will become her soul mate. She ponders: "Those rare persons who were themselves harbingers of change and death ... one of them would become my husband" (TPI 33).

Panchaali is forced to live in her father's palace's chamber that is like a jail for her. That chamber is in a very protective place of the palace and is devoid of clear sunlight and fresh air. She says: "My father's palace seemed to tighten its grip on me until I couldn't breathe" (TPI 01). That is the reason she dreams about a palace of her own which appears to be a projection of Panchaali's internal dreams and longings. That will be really a depiction of Panchaali's actual character that she can't express in her dad's castle. She recognizes her dad's castle with a jail that attempts to obstruct her development as a person. She starts imagining that one day she will have her own palace and that will be totally different from her father's palace. Her palace will fulfill her suppressed dreams. She imagines: "I closed my eyes and imagined a riot of color and sound, birds singing in mango and custard apple orchards, butterflies flitting among jasmines...I only knew that it would mirror my deepest being. There I would finally be at home" (TPI 07).

Divakaruni here presents that how a woman creates a make-believe world in her imagination to forget the cruel reality of her present. Draupadi doesn't embody the reality of her life and doesn't rest until she counters the reality of the real world by making best of the efforts to fulfill her expectations. Her make-believe world was not an ordinary desire,

rather it was a determination to control her fragile status in the men's world. Her determination symbolizes a synonym of hope in her life. They work as a defense guard for her mental survival. The image of her own palace symbolizes her desired world and her desired society. This imagined palace for Panchaali is a desire for freedom and possession, which has been deprived to her since birth.

Divakaruni's Panchaali has also dreamed of true love. Panchaali feels exceptionally energetic when she is informed that she will pick her own husband in a swayamvar (a ceremony organized for a woman to choose her husband from various men), which is organized by his father- Draupad for her marriage. Panchaali cheerfully learns all the womanly skills and attitudes to fulfill her role as a wife and as a daughter-in-law by her teacher. Soon Panchaali faces the critical crossroad about the contest in her swayamvar. The truth pricks her heart, that her father has conditioned an ability test in the form of an archery contest. The abled suitor, who will win, can marry Panchaali. The writer, reveals her inner self-crisis in the lines: "Why even call it a swayamvara then?" (TPI 56). Panchaali faces the reality that she is nothing except an object for her father to enhance his political strength. Her father wants to make an alliance with Arjuna (one of the five Pandava brothers). Arjuna is one of the greatest royal warriors of that time and the brightest pupil of Drupad's enemy Drona. Panchaali realizes that she is the bait for the fish- Arjuna.

The element of improbability mythically induced in the epic narrative which in a supernatural sense affected the destiny of human life, while, the element of condition signifies the patriarchal intervention in the women's choice and existence, since the origin of civilization. Chitra Divakaruni wonderfully illustrates this through her linguistic expression. The author brings to the global forum "the specters of sentimentality" of a woman, besides re-centering Orient's culture in the metropolitan culture of diaspora (Mishra, Vijay 439-462). This historical projection construes oppositional structure of post-colonialist and post-nationalist narrative. The physical and cultural contestation of a woman by a woman author theorises dynamics of historical processes on one hand, while at the same time it provides readers or critics to engage with "historically subjugated section of human societies across the globe and in context of national representation it expresses deficit in terms of education, human progress and humanitarian interests" (Andreotti 01).

Panchaali indeed is shown the portraits of the several kings so that she can recognize them in the swayamvara. Panchaali's eyes get stuck on Karna's eyes and she feels attracted towards him. She confesses: "His eyes were filled with an ancient sadness. They pulled me into them. My impatience evaporated. I no longer cared to see Arjun's portrait" (TPI 69). Panchaali feels the same marginality in Karna's eyes that she herself has been going through. She feels likeness in him with regard to being deprived of parental love. Marginality is like feeling 'other' in the patriarchal Indian society. Panchaali always regrets the sense of otherness which she experiences whole life being in her father's palace. Panchaali feels helpless when every one of her family, as well as Krishna, advises Panchaali not to choose Karna. The reason of rejection is quoted to be his lineage which is not known for he is brought up by a chariot driver. Panchaali's vision about love gets broken and she says: "How foolish I'd been, dreaming of love when I was nothing but a worm dangled at the end of a fishing pole" (TPI 57).

Divakaruni has created the story of Panchaali's infatuation towards Karna in the novel, which is different from the original epic to question the institution of Indian marriage and woman's place in it. Divakaruni points out that in India marriage is not a private affair. Jones also says: "There is only a minor role for the bride in the context of decision making regarding the marriage" (Jones and Ramdas 91). Divakaruni points out that marriage in India is a social affair and all the elder members of the family decide the matchmaking. Panchaali seems to misinterpret love against marriage. In Indian ancient civilization, it is a natural logical fact. A man-woman relationship is based on trust and likeness, but Panchaali's resistance for her admiration for Karna in her mind unconsciously draws her to disillusion that she can exercise defiance to elders and to social norms of the institution of marriage. This proves to be a mere flick of her imagination, not reality. Her imagination leads her far away from the truth of time and space. Her disillusion is well described by Drassinower in these words: "Disillusion speaks of truth, to be sure, yet only from the viewpoint of illusion" (Drassinower 16). A woman who remains in illusion takes her illusion as reality and takes the reality of her life as an illusion to lead her life.

The author conceptualizes the formulation of human imagination in the context of cultural freedom. The author also reconfigures the fact that diaspora's sense of themselves is intertwined with emotional engagement with their homeland and culture, but due to the break in boundaries because of transnational communities, the historical situations too have entered in the public sphere. The novelist as a diaspora writer feels similarity with Panchaali because like Panchaali struggles to get her existence in the patriarchal society, diaspora mass is also struggling psychologically to forget their native cultural ethos and values to get an existence in the alien culture. The barriers and conflicts in an identity or a culture are also affected. Hence as an author Chitra Divakaruni herself is exposed to liberation struggle which "theorizes public sphere and the opportunity for critical expression" (Bernal).

As predestined oracle to happens to be true, Panchaali suddenly falls into a dilemma of delusion and hope at the same time. Panchaali expects that she will earn love from Arjuna so she insults Karna in the Swayamvar. When Karna seems to plunge in harming Panchaali's brother Dhri, because Dhri wants to prevent Karna from participating in the contest, Panchaali saves Dhri by humiliating Karna by asking Karna about his father's name. She makes Karna leave the contest. In accordance of the oracle, Panchaali accepts Arjuna as her husband who wins the bow and arrow contest. Panchaali's expects that Arjuna will love her after their marriage, but Kunti (Arjun's mother) as mythically destined to revert Draupadi's destiny (as according to oracle announced at the time of Panchaali's birth), unknowingly declares that all her five children have to share what they receive in charity. Pandevas were exiled and were living in forest at that time. Coincidently it is none other than Panchaali in charity which they get bound to share. Panchaali wishes that Arjuna would protect her. Panchaali feels shocked to find that Arjuna does not argue with his mother, rather accepts it as mother's words, and mother's words seem to be respected even at the cost of lives.

The author projects dichotomy of ethics and aesthetics in the representation of the normative notions for Panchaali her 'self' and 'body.' Both Kunti and Panchaali face a typical battle. The battle field within their mind is an open-ended chiasmus or crossing between the 'I' and the 'They/we.' The psychological impact of being a wife to five men begins a debate over women's power to control their own body. Even Kunti feels aghast at her words, which has been accepted as norms to respect mother, rather to critically understand it as a mere slip-of-tongue. The author with the narration of historically embedded ideologies in human mind seems to reinvestigate dimension of "paradoxical and contradictory formation of knowledge and manifests code" (Lane 80) which has been passed from generations to generations since ages in the name of the religious manifesto to position women in society.

At that point, when Panchaali's father Drupad, her siblings and the Pandava talk about the possibility of Panchaali's wedding with five brothers, their chief concern is their family respect. No one offers significance to Panchaali's desire. Panchaali feels contempt at man's disregard for herself and her body. The women's desires are not considered as essential. Her brain again thinks about Karna and she starts feeling that it is her punishment for having insulted Karna so unreasonably. She repents: "An insidious voice inside me said Karna would never have let you suffer like this" (TPI 99).

Panchaali desires for her own palace, love, and her freedom after her marriage. In contrast, Panchaali has to go and live in the forest just after her marriage with five Pandava brothers who are expelled from their kingdom by their cousin brothers- Kauravas. All the five Pandava brothers vindicate the interpretation such action and reaction thus understand as their mother's word as the word of divine intervention a representation of social tradition ethics. In view of the hope not go waste, Panchaali accepts the decision of Pandavas as mythical destiny. But in her heart, there is pain, agony, helplessness, and aggression for being nothing. Kunti also wants that her sons' unity towards their goal to regain their kingdom should not be collapsed due to a single woman in their lives so she compels Panchaali to marry her five sons. Panchaali feels as an object, She mourns due to her physical and mental exploitation by five males that: "Like a communal drinking cup, I would be passed from hand to hand whether I wanted it or not" (TPI 120).

The writer's generic spirituality gets a jolt to feel the pain of Draupadi at this juncture. She seems to regret that the manifesto of ethics that should be the source of shelter, knowledge, guidance to emancipate human from their inner dilemmas rather

impoverishing them, surrounding them with discomfort and darkness, hang-ups of conflicts and agony. In a way, the novelist reveals that the honor and fortune, which has been ever and ever the prerogative of the cult ideology and the power group, present the product of human's sincere, radiant efforts. Thus Panchaali's life lurched in darkness, rather in rejoicing.

The novel The Palace of Illusions metaphorically signifies the image of Panchaali with the cult of the diaspora. Diaspora struggles with a traditional pattern; configures history, culture and homelands context. At the same time diaspora searches for an escape an alternate to legitimize their existence, in the nation. The novelist delineates 'resistance myth.' The novel in the frame of post-nationalist narrative re-establishes and restructures ancient literate which has been transported and transformed within a complex matrix of culture products including oral and pictorial expressions of ancient beliefs and rituals. The novelist wants to focus that mythical context is responsible for generating socio-political meaning. The author does not claim to oppose ancient epiphany, but she intends to justify that "resistance myths portray and mediate basic antinomies of human existence (life/ death, good/evil, God/human, piety/impiety, freedom/bondage)" (Weaver 90). The conflict is the representation of diaspora's epiphany, emotions, and ethics and the writer communicates social practices, social structures by framing the narration of the popular epic to deliberate upon "the intervention of a supernatural dimension implying transcendence" (Weaver 119).

Panchaali feels that from her father's jail she has come into Pandava's jail. Panchaali's illusionary dreams for love, freedom and her own palace get shattered. She faces the reality of the world and of her existence. To come out of the trauma she makes herself strong and serves all five husbands and her mother-in-law with full devotion. Princess Panchaali spends many years in the forest with her husbands and manages with minimum facilities. Her femininity symbolically displays the module of patriarchal norms for females. She never complains against anyone for her unfulfilled dreams. She expects reciprocal respect and love from her husbands towards her.

Time changes and Panchaali's grandfather-in-law Bhishma Pitamah orders Kauravas- his grandsons, to give their cousin brother- Pandavas half of their kingdom. Pandavas get Indraprastha as their inherited share and make a beautiful palace which is bestowed with supernatural magic and charms. Panchaali gives birth to five sons from five Pandavas. Panchaali's elation soars with her dream that comes true. The palace with its spell-bounding mystical river-floors and waterfalls illudes normal vision. Panchaali's pride takes its flight with the increasing luxuries in her life. Being an ambitious woman, her ego becomes indefatigable checkmate and her perceptual experiences and conceptual knowledge emanate illusions. Panchaali's ego has become her hamartia. Ryan Holiday aptly quotes: "Ego has cost the people … it rolled them back from their goals just as they have achieved them" (Holiday Prologue).

Panchaali's fate again plays with her life and she becomes the victim of her own palace of illusion. Pandavas organizes a Rajasuya Yagya prayer in their palace and invites all the emperors of India including their Kaurava brothers to take part in the Yagya. Duryodhan the eldest Kaurava brother, who is also a victim of his aggression and ego, falls down on the illusory floor (that appears like water surface) in the Pandava's supernatural palace. Draupadi and her attendants start laughing and Panchaali in a rage of laughter, sneers: "It seems the blind king's son is also blind!" (TPI 173) This humiliation makes Duryodhan furious. This inexcusable jibe on part of Panchaali leads Duryodhan to be aggressive, destructive and violent against Draupadi, which subsequently causes war popularly known as 'Mahabharat' in the Indian history of ancient times.

Duryodhan fills with rage and revenge returns to his kingdom Hastinapur. After some months Duryodhan invites all Pandava family in his party at Hastinapur's palace. Duryodhan cunningly pursues Yudhisthir for a game of dice. Duryodhan with the help of his deceitful maternal uncle- Shakuni defeats Yudhisthir. Yudhisthir risks and gambles his kingdom, his palace, his brothers, himself and his wife- Panchaali too in the game and loses everything.

Panchaali again faces the reality of her husbands. Her loving devoted sensitivity for her five husbands gets smashed when Yudhisthir risks Panchaali in a game of dice as a piece of property. Her devotion ends with disastrous, destructive consequences. Panchaali is stripped in front of the whole court in Hastinapur palace by Duryodhan's younger brother

Dussasan and no one comes forward to rescue her, neither her husbands nor her grandfather-in-law Bheeshma Pitamah. Everyone becomes the silent viewer of Panchaali's exploitation. The illusion of shelter and protection to femininity from patriarchy gets shattered publicly. The existence of Panchaali as wife mother and daughter gets at stake and manifests complete and final destruction of a civilization and the damage of a culture. After Panchaali's molestation and humiliation she tries to re-evaluate her life and her flaws through the torments, she has endured so long as a woman, daughter, and wife. She comes to know that it is her folly that she never feels dependent. She has expected that her husbands are for her safety. That's why she gets exploited. When the Pandavas lose everything, Panchaali with her disgust assesses the happening of Sabha in this manner:

All this time I'd believed in my powers over my husbands….. But now I saw that though they did love me as much perhaps as any man can love – there were other things they loved more. Their notions of honor, of loyalty toward each other, of reputation, were more important to them than my suffering … For men, the softer emotions are always intertwined with power and pride. (TPI 194-195)

Panchaali comes to know that for men power and their own reputation is more important than the reputation of their women. Panchaali faces the reality of masculine psyche when she observes that not even Karna is her well-wisher. Her inclination towards Karna receives a shock when Karna remains silent and participates in the happening. Panchaali comes to know that due to Karna's marginal status amidst privileged royal members of Kuru dynasty, he has to remain silent at the time of her molestation. Karna's silence becomes the consent for Duryodhan. Panchaali's admiration for Karna gets broken and she utters: "What happened today had stripped away all ambiguities from my heart. Never again would I long for his attention" (TPI 194).

Divakaruni questions the biased rules of Indian society. The procedure of oppression controls Indian culture's 'reality' and 'truth.' The woman in the name of Indian 'Shastras' and 'Dharma' is bound within the possession, physical embodiment and as property. When a woman declines to acknowledge the 'reality' and 'truth' set up by man, she basically questions the feminine existence. Divakaruni demystifies the codes of patriarchy and myth of Draupadi and the revelation of Panchaali's state of mind and thought in itself is a symbol, a question and a beginning of transformation. "The wife is the property of the husband, no less than a cow or a slave" (TPI 190).

Experiencing the undignified attack on her body, Panchaali realizes that it has happened because a woman does not live in a society as an individual. Panchaali realizes that she remains always dependent on others. She always follows her feminine mystique to keep herself dependent and to fulfill her desires. She never strengthens her mind to make herself independent and never tries to fulfill her desire, her own. She doesn't have her own true image and never faces her capacities, reality, and abilities. After knowing her own character's flaw Panchaali decisively determines then: "I no longer depended on them so completely in the future" (TPI 195). Chitra Divakaruni pictures Panchaali's life from birth to womanhood in the manner as Simone de Beauvoir depicts a woman's life in general in these words:

Throughout her childhood, the girl was bullied and mutilated; but she nonetheless grasped herself as an autonomous individual; in her relation with her family and friends, in her studies and games, she saw herself in the present as a transcendence; her future passivity was something she only imagined. Once she enters puberty, the future not only moves closer; It settles into her body; it becomes the most concrete reality. (Beauvoir 395).

The exploitation of Panchaali makes her realize the reality of her being. She comes to know that she should make her own soul strong and should never depend on others. Panchaali knows that she has come into the world to change the history but she doesn't know that this much bad can happen with her to fulfill her aim of her life. She sows a seed of vengeance in herself. The docile and submissive daughter-in-law of Pandava's family dies and she is then an assertive being. Pandavas and Panchaali have to face exile due to their defeat in the game of dice. She loses everything and again has to come to the forest to live. After knowing her identity and strength, she collects all her strength and shows Pandavas their aim in their life. She assumes a pivotal part in conveying them their fates. To protect her palace of illusion she becomes vindictive. She desires for revenge and thinks that after taking vengeance she will get her lost respect and peace of mind. It is pre-decided that

Pandavas have to fight Kauravas to get their kingdom back but Panchaali gives them their target.

Panchaali has become feminist in her thinking due to her molestation by her own husbands. Her heart turnes against them and she decides to rack them in war to regain her respect. She thinks that by taking revenge from the patriarchs, she will get mental solace. She doesn't realize that revenge is not a proper way of getting her dignity back. Panchaali's inner self essentially gets a purpose of life i.e. revenge and death of Kauravas. Panchaali takes an oath that she will not comb her hairs and will wash them with Kauravas' blood. She turns into a vindictive fugitive of her disillusionment. Her disillusion becomes a menace for her own existence, as it only builds another palace of illusion which Duryodhan ironically makes her realize that as her husbands have built for her a palace of illusion which can't protect her dignity, the same palace of illusion later on again proves vain because her 'self' constructs a castle of revenge, which only cast death, rather any meaning in her life, just as she faces the death of her dignity during molestation. Divakaruni said:

She's dead. Half of her died the day when everyone she had loved and counted on to save her sat without protest and watched her being shamed. The other half perished with her beloved home. But never fear. The woman who has taken her place will gouge a deeper mark into history than that naïve girl ever imagined. (TPI 206)

Panchaali's psyche has got a jolt due to her molestation. The huge massacre and destruction occur in the fields of Kurukshetra war between Kauravas and Pandavas. Pandavas win the battle, but Panchaali feels guilty as V. Vishnu Vandana Devi aptly quotes: "There is a discovery in her mind, a doubt about instigating her husband's to plunge into destruction for her own petty satisfaction" (Devi 99). Panchaali realizes that she has lost her own sons, parents, brother and many closed once. She realizes that instead of becoming the 'peacemaker' in the world she has become the 'destructor' and has brought havoc in the world. Only a kingdom full of widows, orphans, with their haunting mourning and blames have been left for Panchaali to have a life in death, and only ruins have remained for Pandavas to rule. Everywhere there appears sorrow, nobody is left to cheer up Pandava's victory. Dying Duryodhan shows Panchaali the reality and he says: "I am going to heaven to enjoy all its pleasures with my friends. You'll rule a kingdom peopled with widows and orphans and wake each morning to the grief of loss. Who's the real winner, then, and who the loser?" (TPI 309)

Divakaruni unusually brings forth Panchaali's illusions and ego that draws her away from the ultimate reality of normal life. She falls into the trap of worldly evil i.e. vengeance, that sentiment acts as Tsunami of destruction and mythical identity of all warriors crush in the bloodshed of Mahabharata war. When a woman comes out of her 'elusive center' and faces reality, she comes to know her own powers, her own reality. She faces the truth that her ego and her emotions of taking revenge can become her hamartia. She understands that she can't control her future with the help of any vice like revenge, which again has made her dependent on others. She should stop expecting from anyone anything. She comes to know that she should make her own soul strong, capable of helping herself and even others in her society to forget her past sorrows. A woman remains in the bondage till she runs behind fulfilling her fragile dreams that are her conflict zones. As soon as she stops desiring and expecting anything from others in her life, she becomes a liberated woman and comes out of her conflict zones. Women must also learn that going against males is not the solution of their problems. Women must also understand that vindication is not the solution for their difficulties but forgiving is more peaceful action in life.

It is important to note that Divakaruni is not questioning the epic narrative Mahabharata in this novel but through her meta-narrative style, she has moulded the story a bit to present the whole world that war is never fruitful. This chapter deals with Divakaruni's story in The Palace of Illusions that is affected by the epic narrative Mahabharata. Divakaruni suggests through the portrayal of her women protagonist-Panchaali's failure at the end of her journey of life in The Palace of Illusions that Panchaali's resistance always thrives on other's gaze and other's condemnation of her, therefore she fails to break this weak 'self' of hers. Her vindictiveness depends on her weak self, other's gaze towards her and her inability to think beyond the sexist notions. She falls into the nuance of patriarchal set up reluctantly and stereotypically. Her life does not resurge from her own self-destruction. As personal is always public and political, so the whole society of

that time face Mahabharata. Renowned feminist Jasbir Jain puts forth her views about feminism and says: "Feminism is not necessarily an ideology of resistance to patriarchal control but, it is a movement that seeks integration of the public and the private space" (Jain; 2003).

Panchaali in her angst and shame ignores her inner strength, although while being molested, she saved herself through that same strength, but after molestation she behaves like an ordinary weak being, who complains and depends upon others to complete her residence. The post-feminist Divakaruni questions women's psyche that if women are able to counter the psychological attack through their mental tolerance then why can't they physically uplift themselves to face the challenges thrown to them. If they do not do this, they resort to means that in a sense an analogy of patriarchal methods. Their resistance finally fails in better outcome. Panchaali apologizes from her subject and says that: "I admitted my guilt about the part I'd played in bringing this war about and asked for their forgiveness" (TPI 313). She faces catharsis as a tragic hero. She helps other women to forget their sorrows. She looks after every single need of the deprived people of her kingdom to redeem her sins and guilt consciousness. Panchaali says: "It was time I shook off my self-pity and did something. I resolved to form a separate court, a palace where women could speak their sorrows to other women" (TPI 323).

When Pandavas get the news of Dwarka's destruction from the flood and the disappearance of Krishna, they decide to go on the final pilgrimage of their life towards the holy Himalayas hills. They leave their kingdom Hastinapur in Parikshit's (survived heir apparent of Pandavas) care and make him the king of their kingdom. Panchaali also follows her husband's towards God's abode in Himalaya. She has learned that her happiness lies with her husband's only. By neglecting her husbands, she will not get anything in her life. She leaves her all the facilities behind and stops desiring or expecting. She says: "Now I need nothing" (TPI 342).

Panchaali realizes that till then she has focused on her bodily desires and has forgotten to strengthen her own soul, that's why she is unable to get mental peace. When Panchaali stops focusing on her bodily desires and goes on the Himalayas by strengthening her soul, she gets the ultimate satisfaction in her life. Panchaali says at the end of the novel: "I am beyond name and gender and the imprisoning patterns of ego. And yet, for the first time, I'm truly Panchaali" (TPI 360).

Although Panchaali tries to find meaningfulness in her life at the end of the novel, she gets a failure in her life due to the unjustified negotiation of her life. That's why Panchaali with her vindictive tendency get no result in her life except the so-called destruction of her family and of her own self. In order to redeem their life, Pandavas and Panchaali travel to the Himalayas with a sense of guilt. Divakaruni gives a message from this novel to the present world that evil vindictive tendency only weakens inner self and disintegrate one's soul from the body. The novel ends with a moral note to enhance femininity, to strengthen soul to face the reality of the world and reality of self. Women must not be dependent on others but should strengthen their selfhood. Escaping from wifely duties is not the solution of their life's difficulties. She conveys that whatever the circumstances occur, every woman must keep going in her life, keeping herself far from depression. Divakaruni makes the female protagonists to do the self-introspection that how their body in the worldly attire cannot strengthen their soul, therefore, there is no peace in their life, illusions are all around them.

Divakaruni says that self-discovery is the only way to build society. One has to see one's pain in the others, rather destroy one's pain negatively, at the cost of others. One should use one's pain constructively to achieve one's potential existence. Therefore at the end, we find the protagonist Panchaali serving socially to release her sufferings and guiding her near ones to serve the path of truth and welfare.

Through the novel- The Palace of Illusion in this paper, the author has presented a way for women to lead their lives neither in deprivations nor in expectations. They should feel happy and satisfied in their life. They should thank the almighty whatever they have and develop their qualities to get peace and fame in their life. They should ignore criticism and keep going in their life. Their development is right answer for all criticism. In my opinion, Panchaali could inspire and support their husband to work hard and to enhance their empire bigger than Kauravas. This could be the apt answer for Draupadi's humiliation and Pandavas defeat.

Some women try to escape the reality in their lives and their attachment and memory never inspire their own being to take responsibility for their life personally. To achieve their dreams, their anticipation level and their fragile longings indeed inspire them to rise high, but their self-endeavour always desire to stand by the stereotypical societal norms followed for gender construction and by gender lens. Their feminine existence does not recognize the truth of their essence. Panchaali also remain away from her real womanly essence, that is love, endurance and hard work, through love woman can win anyone. She commits the mistake of going against her male counterparts. Their feminist thinking has caused difficulty in their life. They have found a way for their existence but their existence can't be called meaningful and complete. Post-feminist critic Myles also says that: "The dire need of the hour is to dissolve all separatist 'ism' and accept each-other as human beings" (Myles). Divakaruni also wants to convey the same message through the tragic life of her women protagonists in these novels. These women search their liberation in seeking illusionary falls outs to fall in the path of self-sufficiency and self-existence. Their trajectory to feel independent indeed drive their life to a kind of self-realization, yet somewhere, in the end, their concerns to build their identity march them to incapacitated pathways, that leave them again to realize that they fail to secure their life with mental peace.

So to maintain one's completeness and mental peace or to achieve true victory in their lives these women should not run away or escape the reality of their feminine role but they should face it by becoming independent and by getting inner strength to understand and recognize the significance of other individuals in their lives. Divakaruni through presenting her novels in tragic forms gives a message to present generation woman to follow the ideology of post-feminism and not of pure feminism. She feels that through following post-feminist perspective a woman can balance her respect, identity and relations. Beauvoir, who talks about feminine emancipation through feminine existence quotes about the way to overcome the conflict between men and women's relationship that: "The conflict can be overcome by the free recognition of each individual in the other, each one positioning both itself and the other as object and as subject in a reciprocal movement" (Beauvoir 193).

Divakaruni's novels are different from contemporary women writers from Anita Desai to Arundhati Roy because she has presented her women protagonists keep struggling in their lives with their unique strengths. Her protagonists do not take a pause in their lives to feel guilty of their past mistakes but they build new hopes to survive further in their lives. Through her novels, Divakaruni gives a message to the present generation women that they must learn a lesson from their past mistakes, they must make themselves strong and independent to face every problem of their lives, they must keep working in their lives to compensate their old mistakes and they must not ruin their lives in futile emotions like despair and guilty of their mistakes. Divakaruni presents that failure and victories are the part of one's life. In this way Divakaruni has given an apt direction to women, to achieve success in their lives. Divakaruni quotes in her interview that: "Actually, though I think of my female protagonists as having both strengths and weaknesses. They are complex characters; they often make the wrong decisions. Perhaps, what distinguishes my characters is their courage and spirit and a certain stubbornness which enables them to keep going even when facing a setback" (Ghose 06).

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A RESEARCH PAPER ON STUDY OF THE HURDLES IN SUPPLY CHAIN MANAGEMENT OF RAW FOOD PRODUCTS IN INDIA

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Abstract:- With this research Paper, we will try to analyse the gaps in present system of logistics or distribution of subject commodities across the country and what are the hurdles in implementing an effective system in place. For the sake of simplicity we will confine our research study to Fruits and Vegetables only, the very outcomes of this study can be extrapolated to Marine, Dairy and Poultry industry as well. The Fruits and Vegetables (F&V) area has been a main drivers in sound development of Indian farming. Given the rising portion of high worth items in the complete estimation of farming yield and their development potential, this fragment is probably going to drive agrarian development in the years to come (ASSOCHAM, 2013). It assumes an interesting part in India's economy by improving the pay of the local labourers. It has huge potential to push the general agribusiness development. India has been offered with wide scope of environment and physio-geological conditions and as such is generally favouring for developing different sorts of F&V. This has set India among the preeminent nations in F&V creation simply behind China. F&V together comprise around 92% of the complete vegetables production in India (ASSOCHAM, 2013). During 2012-13, India's commitment on the planet total creation of F&V was 12.6% and 14% respectively (NHB, 2013).

India is the world's biggest maker of numerous new products of the vegetables, milk, spices, meat, and a wide variety of fruits and vegetables, for example, jute, a few staples like millets, castor oil seed and so on and positioned among the world's five biggest makers of more than 80% farming produce things, including many money minters like coffee and cotton. Table 1 shows Production Share of vegetables in World. India's huge topographical territory combined with differed environment conditions encourages to grow an assortment of fruits and vegetables. India delivered around 81.285 MT fruits and Vegetables which represents almost 14.0% of nation's offer in the world's kitty of vegetables. Albeit, in excess of 70 sorts of vegetables are grown in our country, favour is given to additional well known vegetables like tomato, brinjal, stew, cauliflower, cabbage, peas, potatoes, onions and few regular cucurbits and verdant vegetables. Among the vegetables, potato is developed over huge region followed by onion, tomato and brinjal though, on account of creation potato positions initially followed by tomato, onion and brinjal.

Despite the fact that India has numerous encouraging points in the vegetable farming and promoting area, it has a few hindrances as well. The nation comes up short on an effective production network for the appropriation of the foods grown from the ground. Effective Supply Chain the assumes a basic part in keeping business costs least and benefit as high as could really be expected. There are numerous factors engaged with Supply Chain management, data stream is one of the most significant factors. Stream incorporates the item stream, the data stream and the funds stream. The item stream incorporates the development of products from a provider to a client, just as any client returns or then again administration needs. The data stream includes sending orders, furthermore, refreshing the situation with conveyance and the money stream incorporates all the monetary viewpoint like solicitations and instalments. The current test in inventory network the executives is to keep up each of the three streams in a proficient way, bringing about ideal outcomes for labourers, cultivators, wholesalers.

Table 1: Source NHB

Commodities				
Vegetables	**India share %**		**Fruits**	**India share %**
Brinjal	8.3		Apple	2.4
Cabbage	5.3		Banana	32.6
Cauliflower	4.9		Litichi	0.7
Onion	10.4		Citrus Fruits	12.4
Peas	2.5		Sapota	1.8
Tomato	11.2		Grapes	3.1
Potato	28.0		Mango	22.1
Sweet Potato	0.7		Papaya	6.6
Tapioca	4.5		Pineapple	1.9
okra	3.9		Guava	3.9
others	20.5		Others	11.5
Cassava	8			

1. LITERATURE REVIEW

"F&V constitutes a major part of the world economy and is the raw material for many industries. Among the agricultural produce, perishable food produce like F&V have got the least attention. The SCM of perishable food produce constitutes the processes from production to delivery of the Agri-fresh produce, i.e. from the farmer to the customer. SCM of perishable food produce is complex as compared to other SCMs due to the perishable nature of the produce, high fluctuations in demand and prices, increasing consumer concerns for food safety & quality" (Vorst & Beulens, 2002), and dependence on climate conditions (Salin, 1998) "For quite some time now, all of us have been contemplating on the need for reducing the number of intermediaries in supply chain of fruits and vegetables from farmers to consumption centres. In order to maintain the supply chain and support the farmers in selling their perishable produce, DAC&FW has approved the plan for creation of Integrated Supply Chains for fruits and vegetables in major cities in the country. These projects may be rolled out quickly and would continue to help in maintaining the supply chains for the selected cities even after the current problems related to Covid-19 are successfully behind us. A copy of approved plan is enclosed. All the State Horticulture Missions are requested to urgently identify the potential cities for immediate implementation of this plan under MIDH. Initially, it is proposed to consider not more than 2 proposals from each State. Implementing States will be considered for allocation of additional funds for creation of these supply chains over and above their approved annual allocation." "India is home to wide variety of fruits and vegetables and is often labeled as the F&V basket of the World. During 2018-19, production of 310.74 million MT including 97.97 million MT of fruits & 183.17 million MT of vegetables was achieved. However, the increased level of fruit and vegetable production has not been matched by commensurate development of supply chain infrastructure and management. The supply chains currently are mostly in the informal sector with huge gaps in infrastructure resulting in high wastages.

2. RESEARCH METHODOLOGY

2.1 Research Problem

The main aim of research is to identify hurdles in supply chain of raw food products in India, with special emphasis on fruits and vegetables. The insights so obtained can be used to understand effect on other food products as well, for example Dairy, Meat, Polutry and Sea foods. The consequent losses caused due to these hurdles and to understand the socio-economic effects of these.

2.2 Research Objectives

The following objectives will be achieved by the subject research;

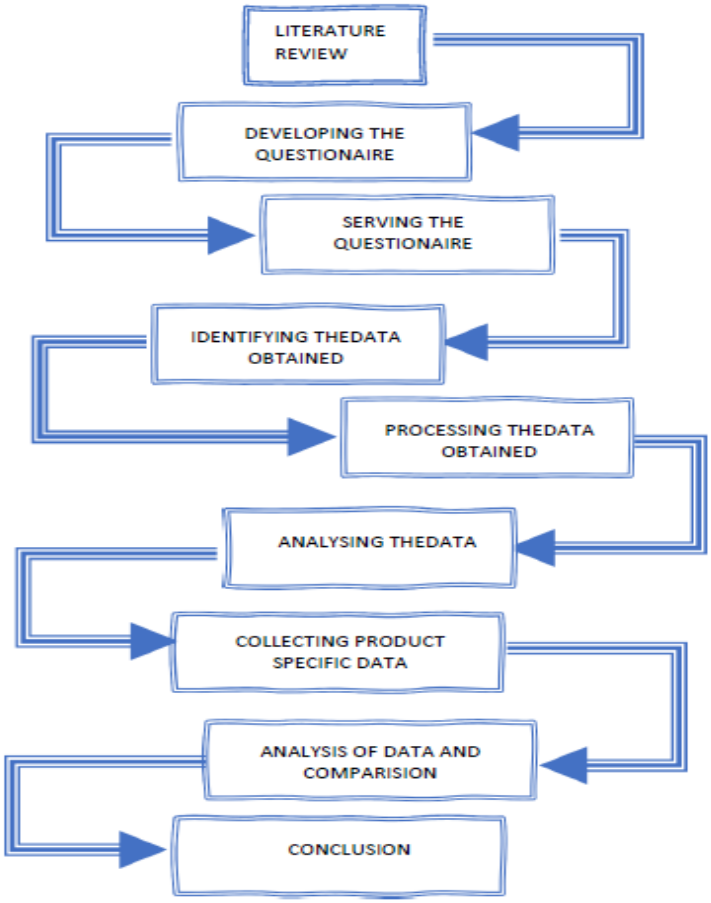
- To identify the hurdles in the supply chain management of Fruits and Vegetables in India.
- To find out reasons for wastages of fruits and vegetables caused due to uneven availability across the country.
- To have insights on how to reduce the intermediaries and the consequent benefits be passed to the farmers and customers.
- To apply the data, so obtained to other raw food products such as meat, poultry, milk and sea foods.

2.3 Research Methodology

Research was carried out in following steps;

- Literature review was carried out to identify the hurdles faced by Fruits and Vegetables industry in India.
- Using literature review a general understanding of various factors responsible for issues faced by Fruits and Vegetables Sector and its stakeholders was formed.
- The stakeholders of industry were interviewed to develop understanding of the reasons of behind the issues faced.
- To identify significance of various factors obtained from earlier steps a questionnaire was prepared to obtain feedback of various stakeholders of the industry.
- Randomly selected stakeholders of the industry were served the questionnaire. A total of 83 responses were obtained.
- The responses were noted and analysis of the data obtained was carried out to understand the importance of factors and causes leading to wastage and inefficiencies in supply chain of Fruits and Vegetables.
- To identify the frequently occurring reasons, analysis was carried out.
- The factors provided by stakeholders were compared with our analysis.

2.4 Research Flow



2.5 Type of Research

Descriptive research and Exploratory has been used for this work. The supply network of Fruits and Vegetables area has been clarified and endeavour has been made towards recognizing the elements influencing the area. The current examination embraces a careful study of essential and contemporary writing accessible and recognized the issues which are influencing the logistics of farming items, particularly Fruits and Vegetables.

The writing has been isolated into different subjects as per the issues in the production network of Natural products just as Vegetables like Cold Chain, Transportation of Fruits and Vegetables, Framework, Supply Chain of Fruits and Vegetables, Quality Management, Food Supply Chain and so on Further an examination has been endeavoured to recognize different elements influencing the distribution of fruits and vegetables. Both qualitative and quantitative techniques have been employed for the research.

2.6 Sample Size

A total of 83 respondents were interviewed along with a questionnaire and their responses were collected and analysed. Vague responses were rejected and responses of 80 respondents were analysed. Various levels of stakeholders were respondents.

3. FINDINGS AND ANALYSIS

Responses of 80 respondents were analysed. Various levels of stakeholders were respondents. On the basis of literature survey and interviews, below reasons of late shipments were identified. There are various elements which will go about as barriers for the effective supply chain of Fruits and Vegetables area in India. An attempt has been put forth to sum up these variables and ordered them as Cold Chain issues, Intermediaries Supply Chain issues, Linkage and Integration issues, Infrastructural issues, Bundling Issues, Technological issues, Farmer's awareness issues, Standards issues, Processing issues, Supply chain productivity issues, Monetary issues, Post-collect misfortunes issues, Transportation issues, Information issues. The factors found have been constant across various states. A portion of these factors should be surveyed in various states according to its socioeconomics and market, likewise to which the moderation methodologies ought to be worked out.

a) **Cold Chain Issues:** There are different issues identified with cold chain in India, like absence of cold chain stores, insufficient limit of cold chain, absence of cold chain organization.
b) **Linkage/Integration Issues:** Linkage and coordination between the different parts in the Supply Chain plays a vital part to make the entire Supply Chain successful and beneficial.
c) **Intermediaries Issues:** One of the fundamental issues in the production network of F&V area in India is the huge number of nearby dealer and go-betweens who eat all the portion of farmer's pay.
d) **Awareness Issues:** With regards to latest technology, government schemes, facilities available, timing of growing vegetables, the awareness of farmers is very poor. The knowledge required to manage produce post-harvesting is very scarce. The knowledge about the quality/ variety of seeds to be used is very less. Without education of farmers it is very difficult to improve the efficiency of the sector as they are the source of entire system.
e) **Bundling Issues:** Bundling is vital for F&V as they are highly perishable merchandise and it needs appropriate bundling for the treatment of these new produce. Without legitimate bundling it is hard to keep up shelf life.
f) **Technological Issues:** The innovation is encircled by numerous specialized issues, for example, upgradation issues, obsoleteness, old procedures, and old hardware. Because of these worries it has gotten hard for the ranchers and Agri financial specialist to utilize a suitable advances and procedures to decrease the post-reap misfortunes and time in operational exercises.
g) **Standards Issue/Quality Issues:** In India, there is an absence of quality principles to meet worldwide quality for send out, Poor cleanliness and wellbeing norms, high quality debasement.

h) **Processing Issues:** Processing is an approach to expand the time span of usability of food and lessen the losses. High measure processing may prompts low wastage of Fruits and Vegetables.

i) **Monetory Issues:** Earnings of farm labours is exceptionally low in the country. They don't get appropriate pay for their rural produce and most extreme measure of offer eat up by the go-betweens. The distinction between the last shopper cost and rancher's acknowledgment is exceptionally high (Farmers get just 25% of the aggregate customer cost share's) in the state.

j) **Transportation Issues:** Transportation assumes a vital part in the Supply Chain. Without appropriate transportation the merchandise can't be conveyed to the client in a perfect time and in a correct quality. It plays even a more significant part in Perishable food like Fruits and Vegetables due to short timeframe of realistic usability, high transitory, required controlled temperature.

k) **Demand/Supply and Data Flow Issues:** Legitimate data is the premise of effective Supply chain. Without proper data flow regarding market sentiments the Supply chain network can't run effectively. In India, farmers have absence of data in regards to the costs on the lookout, request, food handling units and so on Poor data prompts helpless acknowledgment of costs, high measure of losses, late conveyance of merchandise in the commercial centre and so forth.

4. RESULTS OBTAINED FROM RESEARCH

S. No.	Issues In Descending Order	% Of Stakeholders Considering Subject Issues To Be Concerning
1	Bundling Issues	90 %
2	Linkage/Integration Issues	85 %
3	Intermediaries Issues	85 %
4	Monitory Issues	80 %
5	Cold Chain Issues	70 %
6	Processing Issues	65 %
7	Supply-Demand Data Flow Issues	60 %
8	Awareness Issues	55 %
9	Technological Issues	55 %
10	Post-Harvest Issues	55 %
11	Infrastructure Issues	50 %
12	Standards Issues	45 %
13	Transportation Issues	40 %

5. CONCLUSION AND SCOPE FOR FUTURE WORK

The Study led on the Supply chain of Fruits and Vegetables in India recommend that there is an inappropriate Supply Chain in Country, Packaging is the point of most concern, followed by intermediaries and integration issues, Monetary issue also surfaced as one of the leading issues despite support from government and pro-farmer policies, absence of cold chain foundation and Food Preparing units which are leading most extreme shortcomings and coming about to losses and wastage of Fruits and Vegetables. The whole production network of F&V is weighed down with the issue of post-harvest losses and wastages due to long and divided chain, reliance on mediators, helpless street framework, wasteful Mandi framework, lacking cold chain infrastructure, significant expense of bundling, low quality of transportation though slowly improving, powerless connection in inventory network and all of the above contributing to inadequate compensation to farmers on one hand for their produce and over the top costs paid by shoppers on the opposite end.

Profoundly wasteful Supply Chain and cold chain is the significant obstacle in the way of quick development of farming area in India. India's Fruits and Vegetables area is an exceptionally developing area and presents a gigantic chance for the agribusiness and the improvement of the rural zones through an efficient Supply Chain. Anyway, there are different components influencing to the Supply Chain as talked about above which comprises genuine difficulties for Fruits and Vegetables area and are influencing the development of the sector in India. Some of them require quick consideration that can uphold in relieving the possible difficulties and give impulse to Supply Chain of Fruits and

Vegetables sector. As Indian economy depends on farming, there is a need to create legitimate Supply Chain models which may assume a significant part in expanding usable life of the produce and thus diminish the losses and wastages in F&V, increment in farmers pay, create job openings for the people, and improve the financial condition of the farmers which will consequently aid in development of Indian economy.

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MANAGEMENT OF LIBRARY & INFORMATION SERVICES IN PANDEMIC

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Abstract:- Pandemic is an outbreak of a disease that occurred over a wide geographic location and areas. Which affects a significant proportion of the population. Managing of library resources plays in important role in providing effective services during the pandemic. With the current it situation now library services are moving from physical to online resources. Covid-19 has given challenge to the whole world's education system. The virus entered surprisingly which has directly affected to whole country education system. Due to this it is required to shift the education system digital platform. Now the libraries are also moving their services from print to digital form. During the pandemic lockdown users are not directly e in touch with the library E and Library services for maintaining this Resource Management is required for providing them effective services during these situations. During the pandemic situations always new problems in counters to the library professionals in providing services and this helps in finding the possible Problems and their outcomes for providing effective library services. In these situations library professional try to update themselves with the updated tools and technologies that are currently emerging in the field of library services. On digital platform data and information can be managed easily and provided anytime on demand of users. Library professional are also acting as a stress buster for the users as they are continuously helping to research community and Educational Institutes during these pandemic situation. It is the social responsibility e of the library professionals to provide relevant information during these condition because various types of false information are circulated which creates panic in user community.

1. INTRODUCTION

According to the Merriam Webster dictionary pandemic is an outbreak of a disease that occurred over a wide geographic location and areas. Which affects a significant proportion of the population. Managing of library resources plays in important role in providing effective services during the pandemic. With the current it situation now library services are moving from physical to online resources.

Covid-19 has given challenge to the whole world's education system. The virus entered surprisingly which has directly affected to whole country education system. Due to this it is required to shift the education system digital platform. Now the libraries are also moving their services from print to digital form.

The objective of this paper is to emphases the library services of various institutes of India like Indian Institute of Technology and Indian Institute of Management and other Institute of national importance preparing them self to provide services during the pandemic situation.

Covid-19 pandemic as in force to the governments of all countries to impose lockdown. Due to this they have to face social economical political disturbances. Libraries are also facing various problem in providing services during these extreme situations for fulfilling their user needs. Libraries are one of the best places that anybody can go and gain knowledge without the expectation of having to buy something. Libraries also serve as a lifeline for school & college students, researchers, professionals, and many people in our society

1.1 Scope

In the current scenario technologies are playing important role in transforming library services in automated manner. In traditional library system it was difficult to provide library services in pandemic situation now library is moved to digital as well as in virtual form where users can access library services anytime anywhere. In pandemic situations libraries are directly connect to the user community and providing resources in digital form which are compatible with all kind of devices. It is also the need of current society to change the library services quick to the changing environment.

1.2 Objectives

1. During the pandemic lockdown users are not directly e in touch with the library E and Library services for maintaining this Resource Management is required for providing them effective services during these situations.
2. During the pandemic situations always new problems in counters to the library professionals in providing services and this helps in finding the possible Problems and their outcomes for providing effective library services.
3. In these situations library professional try to update themselves with the updated tools and technologies that are currently emerging in the field of library services. Without updating themselves they will not be able to provide effective library services.
4. In future library professional will prepare themselves for this kind of pandemic crisis and Elop there library services and collection keeping view of these type of crisis.
5. In the pandemic situation light to the various social platforms on that library services maybe provided.

1.3 Challenges

1. All the libraries of Institute of national importance like Indian Institute of Technology, National Institute of Technology, Indian Institute of Management are facing difficulties in providing library services to the user during the covid-19. Now it is mandatory for these libraries to update them self in digital form to connect them self to the users and maintaining the believe of users in library services.
2. University libraries college libraries also closed during covid-19 today's library services are affecting for maintaining this they are also moving towards digital collection and services.
3. In Pandemic situation there is also so unavailability of library staff for performing library activities. Current library Technologies not fully automatic they are partially dependent on human for their operations. In Lockdown time all staff may not work simultaneously at a single time according to the guideline of government so this create at challenge for providing library services in user community.
4. All libraries Ashish themselves to the digital platform. Existence of these types of libraries are always in danger due to the unavailability of Technical staff and budget for maintaining library services.

2. DIGITAL LIBRARY & E-RESOURCE

2.1 National Digital Library of India (NDLI) - (https://ndl.iitkgp.ac.in)

National digital library of India (NDLI) is a virtual repository of learning contents. It provides a common platform for various groups of user community. It was sponsored by Ministry of Education Government of India through its national Mission on education through Information and Communication Technology (NMEICT). On this platform e-resources are available for school college University students as well as faculties and researchers. It is developed operated and maintained by Indian Institute of Technology Kharagpur. NDLI has collection of wide range of resources such as books audio books/lectures video lectures, simulations along with all types of subject areas like Technology, social science, literature law, medical etc which are highly useful for various community of users. Its kid's cupboards is educational materials available from primary to postgraduate level.

With the huge data collection it has also various filter option through which document can be easily searched and retrieved. The search options by document type by subject bi source or learning resource makes it more effective in user community.

2.2 Khan Academy - (https://www.khanacademy.org)

Khan Academy is one of the emerging e-learning platform for School & College student. It was started with 12 schools as a pilot project in Rajasthan now 1500 schools are incorporated from 2 Year. It was initially supported by Tata trust of developing an ideal platform of digital learning for student. It is fully non profit organization which aims for quality education for remote area student. It is also design to provide content in local language special in Hindi. It also provide facility for student to ask there doubt. In edition they also provide special collection of material in form of library for teachers.

2.3 Project Gutenberg - (https://www.gutenberg.org)
Project Gutenberg is an online library of free eBooks. Project Gutenberg was the first provider of free electronic books, or eBooks. Michael Hart, founder of Project Gutenberg, invented eBooks in 1971 and his memory continues to inspire the creation of eBooks and related content today.

2.4 INFLIBNET - (https://www.inflibnet.ac.in)
Information and Library Network (INFLIBNET) Centre, Gandhi nagar is an Autonomous Inter-University Centre (IUC) of University Grants Commission, New Delhi (Ministry of Education, Govt. of India). It is a major National Programme initiated by the UGC in March 1991 as a project under the IUCAA, it became an independent Inter-University Centre in June 1996. INFLIBNET is involved in modernizing university libraries in India using the state-of-art technologies for the optimum utilisation of information. INFLIBNET is set out to be a major player in promoting scholarly communication among academicians and researchers in India.

The primary objectives of INFLIBNET To establish INFLIBNET: Information and Library Network a computer communication network for linking libraries and information centre's in universities, deemed to be universities, colleges, UGC information centre's, institutions of national importance and R & D institutions, etc. avoiding duplication of efforts.

2.5 Swayam Prabha (https://www.swayamprabha.gov.in)
Swayam Prabha is the imitative of Govt. of India & Ministry of Education. Which focused on providing high quality learning content in form of video lecture throw 32 Educational channels in DTH. It have collaborated with various institute like NCERT, UGC, IIT, IGNOU, NIOS to telecast there lecture throw there platform. Lectures telecast by subject expert of there respective field. List of channels are given to the today on the website of swayam prabha. All programme are free accessible for students. All programme are repeated 4 time in a day according to schedule. All the registered participant yet advanced schedule alert before one week.

2.6 Swayam - (https://swayam.gov.in)
SWAYAM meaning "self" is acronym of Study Webs of 'Active-Learning for Young Aspiring Minds' is an Indian Massive open online course (MOOC) platform. SWAYAM is promoted and launched by Ministry of Education. It is basically design to provide digital education to all those learners who wants to update themselves and in search of legal platform that also certify their learning. Swayam includes courses from High School to research level courses, technical skill courses that enables readers to update in their respective fields. Swayam have been jointly developed by Ministry of Education and all India Council of technical education. In pandemic situation Swayam is one of the emerging platform for Digital education and certification in India. Currently Swayam has 26 partnering institutes, 2471 completed courses, 12563084 enrolled students, 1139494 exam registration, 815927 successful certifications. In addition it also promotes faculties and institutes to create local chapters for improving academic performance and contributing in their respective field. The courses available on Swayam are divided into four different sections:

1. Video lectures 2.
2. Specially prepared reading contents that can be easily downloaded or printed.
3. Self assessment, assignments, quizzes.
4. Online discussion forum for solving the doubts of learners.

2.7 E-Pg Pathshala (https://epgp.inflibnet.ac.in)
E-PG Pathshala is an initiative of the MHRD under its National Mission on Education through ICT (NME-ICT) being executed by the UGC. The content and its quality being the key component of education system, high quality, curriculum-based, interactive e-content in 70 subjects across all disciplines of social sciences, arts, fine arts and humanities, natural & mathematical sciences. This provides 20000 E-Text, 19000 Video and etc.

3. CONCLUSION

During the pandemic library Professionals have to change the mode of providing information and Library services so that write user get right information in a right way right manner. Various types of information's are available on Google and other searching platforms but only library professionals can help to users in providing right information so that they can get exact information in minimum time.

In pandemic situation mode of providing information in digital form helps in maintaining social distancing and director physical contact from users. On digital platform data and information can be managed easily and provided anytime on demand of users. Library professional are also acting as a stress buster for the users as they are continuously helping to research community and Educational Institutes during these pandemic situation. It is the social responsibility e of the library professionals to provide relevant information during these condition because various types of false information's are circulated which creates panic in user community.

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A CONCEPTUAL STUDY ON THE ROLE OF TRANSFORMATIONAL LEADERSHIP IN ORGANISATIONS

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Abstract:- This study proposed that transformational leaders use various behaviours to impress followers' which can also be referred to as organizationally beneficial behaviours (e.g., better task performance and helping behaviours) through ignition of followers' work engagement. That is, employees who inspired by transformational leadership are more likely to immerse themselves within the work, and, in turn, this is often likely to end in better task performance and helping behaviours. During this study, we adopted conceptual research to identify and study the role of transformational leadership in organisations.
Keywords: Transformational Leadership, Work Engagement, Task Performance, Motivation.

1. INTRODUCTION

In this dynamic environment, leaders need team members in an organisation who invest their full attention and energy in achieving the formal job requests documented within the employment agreement. Members must even be willing to take a position extra effort and exceed formal job expectations. Members must go further because when tasks are interdependent, job descriptions don't and can't include all kinds of behaviour needed to perform job requests. For instance, the work description cannot specify exactly when and why members invite help from peers or help others because this behaviour is voluntary.

At the workplace, leaders usually influence team members' behaviour, because they're viewed as a representative example of the organization and possess the authority to measure members' performance or make decisions concerning their promotion. Therefore, leaders' behaviour may shape members' behaviour. As a prevalent leadership style, all levels of leaders within the organization can exhibit transformational leadership.

Through four behaviours (i.e., idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration), transformational leaders can change members' behaviours, encouraging them to exceed expectations (Bass, 1985).

2. LITERATURE REVIEW

Bierly et al. (2000)	Transformational Leadership, Corporate Culture, and Structure, Knowledge Transfer
Hays (2007)	Transformational Leadership, Corporate Culture and Structure, Corporate Sustainability, Corporate Democracy
Spiller et al. (2011)	Corporate Culture and Structure, Knowledge Transfer, Corporate Sustainability
Limas (2004)	Transformational Leadership, Corporate Culture and Structure, Corporate Sustainability, Corporate Innovation and Change
Intezari and Pauleen (2014)	Corporate Culture and Structure, Knowledge Transfer,
Thierauf and Hoctor (2006)	Learning Organization / Organizational Learning
Gupta (2003)	Learning Organization / Organizational Learning
Chong and Choi (2005)	Learning Organization / Organizational Learning

3. TRANSFORMATIONAL LEADERSHIP MODEL

With the help of literature review and while interacting with various industry leaders it is found that communicate effectively with empathy, team engagement and motivation are the traits that make a leader go the extra miles and makes him/her a distinctive personality who is being followed by team members willingly.

3.1 Effective Communication

Effective communication plays an important role to maintain high levels of productivity and functional effectiveness, organizations must make sure that their employees are focused and invest their full energy into completing the tasks.

An effective communication refers to "the communication which is communicated as intended by the speaker i.e. Leader in an organisation. More clear, candid, complete and clear, a message will ensure the task completed on time with optimal efficiency and effectiveness.

3.2 Team Motivation

Team motivation another factor that plays an important role in making a leader a role model. Role theory (Katz & Kahn, 1966) suggests that employment roles comprise task and social roles. Social roles played by leaders which makes them transformational leaders are often required extra-role behaviours from members, which aren't mentioned during a formal contract but are good for the organization. Although these extra roles played by leaders don't link to organizational rewards, they benefit the entire team, as they allow members to gel up more smoothly and effectively together and makes the best team altogether. To the extent that engaged members should be more willing to take a position their energies and step outside formally defined role behaviours, their wider array of labour behaviours (including extra-role behaviours) is more likely to contribute to achieving organizational goal.

Engaged members concentrate their physical efforts on pursuing desirable goals, and remain focused on tasks and emotionally connected to the role. Specifically, engaged members deploy themselves to the work role and devote their physical energies to behaviours that directly contribute to accomplishing organizational goals. To realize organizational goals, they also devote their cognitive energies to behaviours that need vigilance, attention, and concentration. Moreover, the investment of emotional energy promotes emotional connections with co-workers, facilitates the attainment of organizational goals, and leads to better performance.

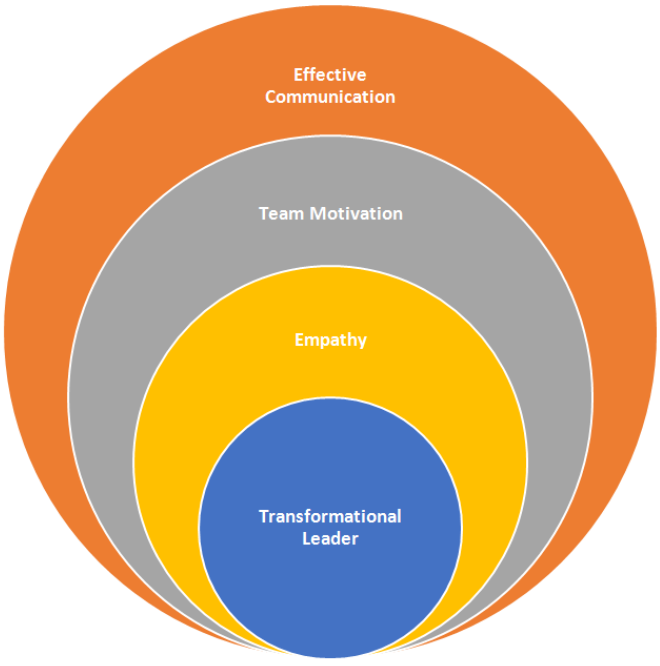

Figure 1: Transformational model: developed by author(s)

The above-depicted model (Fig:1)suggests that a transformational leader requires empathy at the core, he/she must be a good team player first than being a good team leader, also effective communication is essential to impart effective motivation in the team as well as to play an empathetic role. The literature review suggests that a leader can become a transformational leader when he/she understand the team members like a family, imbibe in them a sense of belongingness concerning the organisation by using communication as a tool.

4. IMPORTANCE OF TRANSFORMATIONAL LEADERSHIP

4.1 IT Keeps the Organisation Open, Honest and Ethical

Honesty and integrity are core values for transformational leaders; they are ethically driven with a decent specialise in values, authenticity and transparency. Unlike transactional leaders, who tend to specialise in completing a task without seeing why it's essential, transformational leaders remain focused on doing the proper thing within the right way.

4.2 Saves Turnover Costs

High turnover costs are time-consuming and frustrating. They will also end in a loss of productivity amongst current employees, also as create a long-lasting cultural impact. Transformational leadership has the potential to reverse this trend by making employees feel more engaged and included within the organisation.

4.3 IT Is an Efficient Sort of Leadership

It's no coincidence that those companies mentioned earlier – Google, Apple, Amazon and Netflix – are among the foremost successful within the world; in any case, countless studies have found that transformational leadership is one among the foremost effective management styles. Through strong communication and collaboration, transformational leaders inspire their staff, putting challenging goals in situ that promote creativity and increase morale.

5. ROLE OF TRANSFORMATIONAL LEADERSHIP IN ORGANISATION

Successful organizational change depends on leaders – managers and managers who have direct authority with people browsing the change – to support and execute change in their span of influence. Effective leaders acknowledge that their support is crucial to success and plan to do their part. The subsequent are a number of the role's leaders may play as they drive change in your organization.

5.1 Initiator

Leaders act as advocates for the change at their level within the organization. They're representatives who keep the change ahead of their peers, the "higher-ups." An Initiator won't let the change initiative die from lack of attention, and is willing to use their political capital to form the change happen.

5.2 Role Model

Leaders of change must be willing to travel first. They demonstrate the behaviours and attitudes that are expected of everyone else. Employees watch leaders for consistency between words and actions to ascertain if they ought to believe the change is getting to happen. Leaders are self-aware and deliberate.

5.3 Quick and Timely Decisions

True leaders usually control resources like people, budgets, and equipment, and thus have the authority to form decisions that positively affect the organisation. They need the power to mention "yes" or "no" to the project moving forward within the span of their control. During change, leaders must leverage their decision-making authority and choose the choices which will support the organisation. Leaders are decisive and set priorities that support change.

5.4 Effective Communication

Leaders are the face and therefore they are the "voice of change". They convey often to share information, keep people updated and offer encouragement. When employees hear multiple

messages within the organization, the one they hear the foremost is their immediate boss. Leaders interpret the change message to be relevant for his or her reports, while still matching the general message. Leaders are transparent and consistent.

5.5 Team Player

Leaders are servants at heart, they know that winning or losing is all about team spirit. Hence by being an effective team player rather than being a team leader he/she leads the show. When employees watch these kinds of leaders, they wish to become like him/her, and they strive to learn and grow to be capable enough by continuous improvement.

5.6 Characteristics of Transformational Leadership

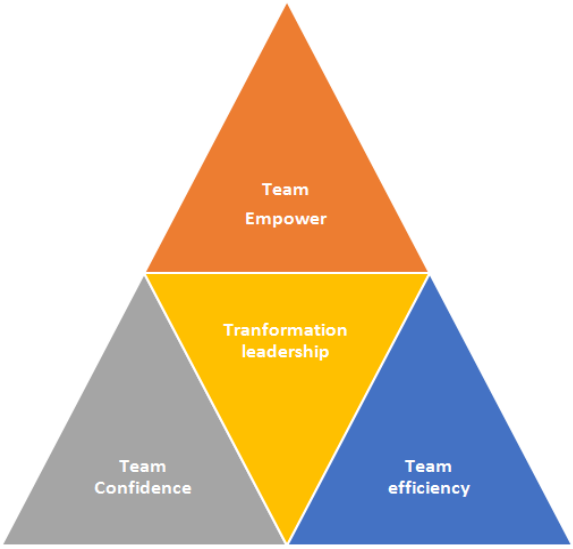

Figure 2: Characteristics of transformational leader model: developed by author(s)

The above-presented model (Fig: 2) represents that leaders who bring change to the organisation with their traits are those who empower the team members, who create more leader rather than followers. Transformational leaders work hard in enhancing the confidence level of team members through training and workshops so that they can feel confident about their domain. Those leaders also emphasise maintaining the team efficiency because they believe in “WE” power than “ME” power.

6. LIMITATIONS OF TRANSFORMATIONAL LEADERSHIP

6.1 There Is Too Much Focus on the Bigger Picture

Often, transformational leaders tend to overlook details, preferring instead to focus on the bigger picture. There can also be a tendency to avoid administrative work, meaning that certain protocols or processes can be missed (such as saving receipts from purchases for accounting purposes).

Therefore, this type of leadership requires high levels of support from more organised and detail-oriented team members to maintain a transactional focus.

6.2 IT Can Be Risky

Transformational leaders use their charisma to serve as role models for their employees and the organisation at large. They utilise their energy to demonstrate how to achieve goals and accomplish tasks, and they aren't afraid to take risks. However, if you go too far with your risk-taking, then your actions can become detrimental to the team and the organisation. The frequent change can also become disruptive and is, therefore, more likely to produce adverse outcomes if it happens regularly.

6.3 Continual Communication Is Needed

A transformational leadership style can only be successful if you maintain open lines of communication with team members to transfer the vision of a task.

For this to happen, close, regular communication must be maintained, as well as constant feedback and team meetings to keep enthusiasm levels high. Not only is this exhausting for team leaders, but if employees' sense that communication isn't happening, or begin to feel out of the loop, then they may lose interest in their tasks - and therefore their commitment to the vision drops.

6.4 Suggestions

- Organizational leaders must follow the traits to become transformational leaders so as to make the best and efficient use of available resources.
- It is mutually beneficial for the organization as well as for the work force.
- It makes everyone happy and content in their output.

7. CONCLUSION

Transformational leadership is when leader behaviours influence followers and encourage them to perform beyond their perceived capabilities. Transformational leadership inspires people to realize unexpected or remarkable results. It gives workers autonomy over specific jobs, also because the authority to form decisions once they need been trained. This induces a positive change within the followers' attitudes and therefore the organization as an entire. Transformational leaders typically perform four distinct behaviours, also referred to as the four I's. These behaviours are inspirational motivation, idealized influence, intellectual stimulation, individualized consideration.

Transformational leadership serves to reinforce the motivation, morale, and job performance of followers through a spread of mechanisms; these include connecting the follower's sense of identity and self to a project and the collective identity of the organization; being a task model for followers to inspire them and to boost their interest within the project; challenging followers to require greater ownership for his or her work, and understanding the strengths and weaknesses of followers, which allows the leader to align followers with tasks that enhance their performance. It is also important to know the qualities a transformational leadership can bring back peace organization. Transformational leadership enhances the commitment, involvement, loyalty, and performance of followers.

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THE SCIENCE AND COMMERCE OF TECHNOLOGICAL ADVANCEMENTS IN UNCONVENTIONAL PLANT BASED PROTEIN

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Abstract:- The thought of substituting the animal-based food isn't new. Yet, AI is offering an all the more remarkable and promising method of doing this. It is permitting food researchers to investigate new fixings, to create astounding plans, and to discover inventive methods of imitating all the delicious fats and proteins that eggs, milk, and meat bring to our food. Vegetarian "meat" produces that are aimed at impersonating the look, smell and the taste of the real meat are already commercially available, while correspondingly scientists are emerging lab-grown and processed meats. Plant-based foods does have the probability to have an immeasurably lower carbon footprint. This study attempts to comprehend and explore the role of artificial intelligence in the unconventional protein; secondly, to investigate if Vegan Meatless options, manufactured through use of artificial intelligence, could be an answer to the environmental challenges faced by the meat industry and lastly, if the plant based protein sourced from artificially intelligent measures can be sustainably implemented as an alternative to conventional meat. This paper has demonstrated the facts and figures of the vast opportunity, thereby indicating a substantial growth in the new industry. The growth is estimated from $150 million currently to a $1.1 billion manufacturing, USD 3 billion consumer sector and hence benefiting possibly every state in the nation.
Keywords: Plant based protein, technology, vegetarian meat.

1. INTRODUCTION

"We're making meat for uncompromising meat lovers, but with a fraction of the environmental impact."

– Dr. Patrick O. Brown

In order to raise domesticated animals for eventual food ingestion requires almost around eighty percent of the world's agricultural land, hitherto it delivers an approx. number of under just eighteen percent of the total world's calories. Animal farming can be claimed as the main source of deforestation, biodiversity misfortune, corruption of land and habitat clearing worldwide. It further embodies more than fourteen percent of all the human-prompted ozone exhausting substance emissions.

Besides meat is known to be a wellspring of supplements, such as, protein, iron or zinc, it is seen that consuming substantial levels of regular meat is thus linked to some serious illnesses namely, cardiovascular infection, type 2 diabetes, and colorectal cancer, sicknesses that are known to be the main reasons of death in Australia. Moving the scenario towards plant-based proteins might help to diminish paces of preventable illness and premature deaths. Because of the rapid expansion in worldwide populace, a significant move in food creation and utilization, especially for protein-based food sources, is getting earnest. [1]

Josh Tetrick, the author and CEO of food fire up Hampton Creek, who are among those utilizing AI to grow new foods. His journey began in an exceptionally unsophisticated manner – he just explored for plant-based food, adding them to a fundamental database. The ground-breaking AI calculations permit him to deliberately discover new fixings or details that can give substitutes to creature-based items. He isn't the only one in his mission. In Santiago, Chile, Matias Muchnick, Karim Pichara and Pablo Zamora are having a go at something comparable with their new organization NotCo. They need individuals to eat in a progressively nutritious and less ecologically burdening way.

Creature based food negatively affects our planet's assets. As laid out in this BBC Future article, taking out meat from the human eating regimen would slice up to 60% of the food-related nursery emanations, and let loose the lopsided portion of new water and horticultural land that domesticated animals use. There likewise are the numerous moral, work, land and waste disposal issues around large meat preparing plants.

All things considered, meat request on the planet is expanding as populaces and economies develop. Worldwide creation of meat has multiplied from 159 million tons in

1986 to right around 318 million of every 2014, as indicated by the UN's Food and Agriculture Organization (FAO). Indeed, even in nations where it's anything but an extravagance, meat utilization tenaciously will not fall. Both in the US and in the UK, it is assessed that the extent of the populace who are veggie lovers – not to mention vegetarians – is in the single digits.

Along these lines, whatever substitutes for meat that Tetrick and Muchnick come up need to taste and feel like the first item. Yet, they likewise must be scalable, open, and ideally, more beneficial. So, they are exploring measures as to how AI can help them achieve this. [2]

A US based firm, Impossible Foods, has utilized artificial intelligence processes to a plant based version of he me that is known to give beef its color and taste. The second category of alternative to meat is popularly known as cultured meat or clean meat, which is manufactured by means of animal stem cells. The stem cells are matured in a lab or bioreactor, commonly with the assistance of a growth-enhancing substance taken from a calf fetus.[3]

Presently researchers are utilizing food based science, tissue designing and biotechnology to nurture new meat replacements with the proximity in taste, surface, and presence to meat. Chicken fingers and burgers made with these advancements are currently displaying up on market racks, prepared by establishments with comprehensive financing from tech monsters and biggies like Microsoft's Bill Gates, Twitter originators Biz Stone and Evan Williams and Google fellow benefactor Sergey Brin. These food innovators trust cutting edge, technologically laden toolboxes will help make items that meat eaters love. [3]

Culinary experts, researchers and business visionaries around the globe are escalating to the greatest challenge of commanding progressively supportable protein choices. With higher probabilities for more protuberant creation competences, diminished information, handling costs and moderated assurances to ingest less calories related diseases; the plant-based meat is heaving in the critical industry, financial professionals and government contemplations. In certain well fed countries; the pressures for rising natural, welfare and nourishment security are borne from customary structures of protein generation and are thus encouraging a shift in open notion towards plant-based foods. [4]

Farms are turning out to be increasingly similar to factories: firmly controlled tasks for turning out solid items. On account of better conception of DNA, the plants and animals thus raised on a smallholding are firmly controlled. Meticulous hereditary control, identified as "genome altering", makes it conceivable to change a yield or stock creature's genome down to the degree of a solitary hereditary "letter". It is trusted that this innovation will be more creditable to customers than the affecting of entire qualities between species. [5]

Such innovative changes, in equipment, programming and "liveware", are coming to past field, plantation and byre.

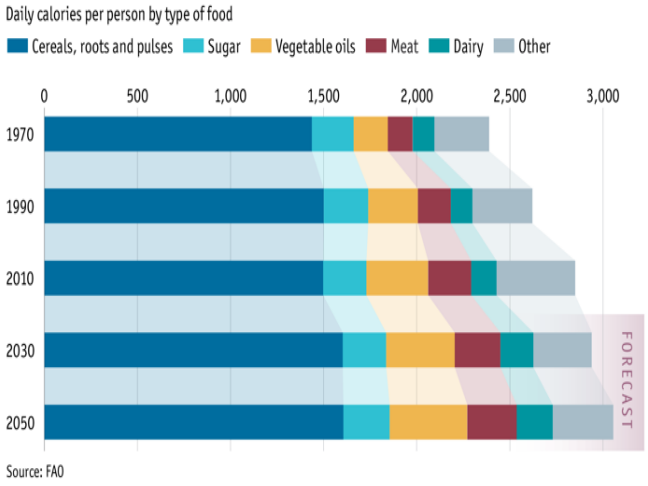

Figure 1: Depicts daily calories per person by type of food

The Food and Agriculture Organization at the U.N. indicted of envisaging several such issues, circulated a report in 2009 which proposed that by 2050 agrarian generation should ascend by 70% to fulfill anticipated need. Since most land appropriate for cultivating is as of now cultivated, this development must originate from more significant returns. Agribusiness has experienced yield-improving movements previously, including motorization before the subsequent universal war and the presentation of new harvest assortments and farming synthetic substances in the green insurgency of the year 1950s and then 1960s. [6]

2. HISTORY OF MEAT ALTERNATIVES- PLANT BASED PROTEIN

In ancient times, Alternatives to meat as a protein source have existed for millennia and started in china with conventional items such as tofu and tempeh (produced using soybeans) and seitan (produced using wheat protein).

Then around the mid twentieth century, nut and oat based items technologically advanced, for example, Nuttose and Protose made by pioneers like John Harvey Kellogg, with the expectation of evolving greater health and benefits. The ascent of these items was driven, to a limited extent, by clean worries over the early meat preparing area, with Kellogg likewise bringing up issues over the productivity of creature farming with regards to a developing population – concerns despite everything present today.

Followed by the Mid to the late twentieth Century, Momentous developments in progress and hustling innovations followed the Second World War and added to the improvement of items dependent on plant protein concentrates. This reinforced the upgrading of soy-based meat options, during a period of expanded meat utilization and sanctioned by agrarian headways and strengthened animal cultivation. For example, Tofurky emerged in the U.S. in around the1980.

This is around the Mid-21st Century that the Meat choices entered the commercial sector when Burger King turned into the main American cheap food chain to offer a customary plant-put together burger with respect to their menu in 2002.

The most recent decade Products, for example, the Impossible Burger and Beyond Burger envoy another age of alternatives named 'plant-based meat'. This novel age of meat selections, manufactured by means of mixes of plant proteins, fats, gums, flavors and seasonings and extraordinary preparing innovations, has seen dense customer reaction universally, with interest for some plant-based meat items presently outpacing supply. [7]

2.1 Government Policies and Investments

In order to meet more than fifty percent development in food demand projected by 2050, the high profile financial specialists such as Bill Gates, Richard Branson, Hong Kong business financier Li Ka-Shing, Tyson Foods, Cargill and PHW Group, and Singapore government-possessed speculation organization Temasek to exploit more asset proficient techniques. Plant-based food companies with the lion's share happening since 2017 and 43 percent of capital originating from financial speculators; the most dynamic of which were Blue Horizon, New Crop Capital and Stray Dog Capital endeavor. At least US$3.6 billion has been positioned exclusively in plant-based meat brands since the late 1990s.

Figure 2: Depicts Major acquisitions and investments by plant based meat brands

The new age of plant-based meat items are currently accessible in many significant supermarkets across Western nations, in certain cases in the meat case. [8]

Figure 3: Depicts government policies and investments in plant protein

2.2 Gulf Cooperation Council (GCC) Food Industry Status

The GCC food/ nourishment division keeps on seeing a consistent development energy on the rear of rising populace. Developing wellbeing mindfulness and changing way of life have modified buyer inclinations prompting expanded hunger for natural or organic, bundled and global nourishment in the area. Regardless of later monetary slump and usage of significant worth included assessment (VAT), the GCC nourishment segment has exhibited solid versatility and kept up a consistent development dependent on governments' help to drive non-oil economy.

Home to the biggest customer base in the GCC, Saudi Arabia and the UAE are probably going to remain the significant food shoppers through 2023. Saudi Arabia's food industry utilization is anticipated at 39.0 million MT in 2023, indicating a yearly normal development of 3.2% since 2018. During the estimate time frame, nourishment utilization in Oman and the UAE is relied upon to become the quickest over the GCC at a CAGR of 4.6% and 3.5%, separately.

Technology is re-characterizing the F&B division in the GCC as the rising youth populace is better informed and values the entrance to data and comfort alongside the experience. [9]

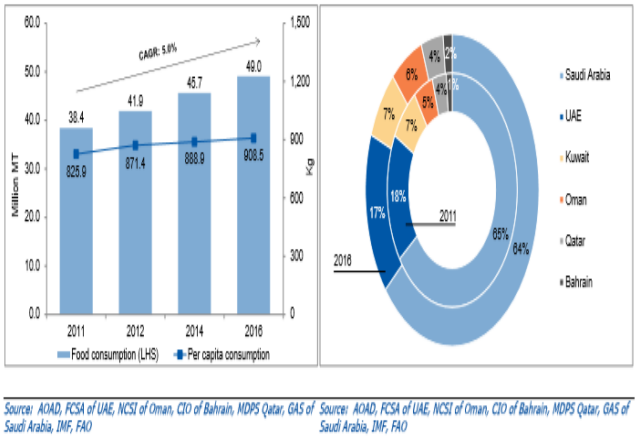

Figure 4: Depicting food consumption and country wise food consumption share in GCC

Keeping in mind the evolution in the need and demand for plant-based protein, the aim of the study is to understand the technological advancements and challenges to the unconventional plant based protein.

The objectives of the study are: -

1) To comprehend and explore the role of artificial intelligence in the unconventional protein
2) To investigate if Vegan Meatless options, manufactured through use of artificial intelligence, could be an answer to the environmental challenges faced by the meat industry
3) To explore, if the plant-based protein sourced from artificially intelligent measures, can be sustainably implemented as an alternative to conventional meat.

3. RESEARCH METHODOLOGY

The study is primarily based on an extensive case study analysis (Case for beyond burger & Impossible Burger) and the collection of information and works from readings finished by numerous experts which adds to the reason for the investigation target. Information are accomplished over records, periodicals, books, web based data and sorted out records by material associations. The auxiliary examination contains of Writing Analysis and Precedent Studies.

4. CASE STUDY BRIEFS AND INFERENCES

4.1 Case Study 1: Beyond Meat

The Beyond Meat arrived at its $1 billion or more unicorn valuation in huge part in view of the achievement of its Beyond Burger in duplicating the taste and feel of chowing down on a hamburger. However, the plant-based burger utilizes in excess of a couple of veggies to re-make the flavor of a work of art, bleeding burger. It's basically these five things which are amino acids, lipids, follow minerals, follow nutrients, and water. None of those are only the creature. They're all present in the plant realm.

4.2 Case Study 2: Impossible Burgers

Impossible Foods Inc. is an organization that creates plant-based substitutes for meat items. Established in 2011, the organization's expressed point is to give individuals the taste and wholesome advantages of meat without assumed negative wellbeing and certain natural effects related with domesticated animals items. The organization examines creature items at the sub-atomic level, at that point chooses explicit proteins and supplements from plants to reproduce the experience and sustenance of explicit meat items. The organization's mark item, the Impossible Burger, was propelled in July 2016, following quite a while of innovative work.

4.3 Inferences

Designed to be meat-like, experts said quality over quantity is the thing that disputes. The high protein in Beyond and Impossible burgers patents from prepared plant-based accompaniments instead of all-inclusive nourishments, which are a gradually invigorating choice.

Nutritionists laud Beyond Meat and Impossible Foods for making items with a plausibly lower carbon impression than conventional meat generation. Ecological supportability aside, nutritionists stress that a wellbeing radiance impact around plant-based meat choices may exist.

As Impossible says in its strategic: "Animal agriculture involves practically a large portion of the land on earth, devours a fourth of our freshwater and decimates our biological systems. So we're taking care of business: we're making meat utilizing plants, so we never need to utilize creatures again." Beyond Meat's strategic comparable yet additionally underlines the advantage these items could have on human wellbeing: "By moving from creature to plant-based meat we are making one exquisite arrangement that illuminates four developing issues credited to domesticated animals generation: human wellbeing, environmental change, imperatives on common assets, and creature welfare." Beyond Meat's site records measurements referring to that the utilization of creature based

meats is related with a 16% expanded danger of malignancy and a 21% expanded danger of coronary illness. [10]

In collaboration with the Center for Sustainable Systems at the University of Michigan, Beyond Meat charged a real life cycle assessment (LCA) study and found out that the Beyond Burger creates almost ninety percent less ozone impairing substance emanations, necessitates forty six percent less vigor, and has ninety nine percent less effect on shortage of water than a quarter pound of traditional U.S. meat.

Respectively, in another LCA study, the Impossible Burger was found to employ ninety six percent of lesser land, eighty seven percent lesser water, ninety two percent lesser amphibian toxins, and make almost eighty nice percent lesser ozone exhausting substance discharges than the conventional and traditional hamburger. [11]

33% of Americans are effectively lessening their meat and dairy utilization. While few Americans distinguish as veggie lover or vegetarian, flexitarians speak to the biggest development open door for plant-based nourishments.

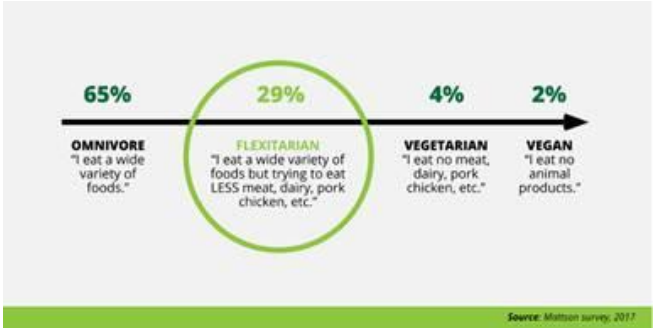

Figure 5: Statistics for Flexitarians

Plant-based customers centered around health and wellbeing are probably going to be children of post war America while ecological effect and creature government assistance are spurring factors for Millennials and Gen Z consumers. Consuming plant-based nourishments is considerably more than only a pattern for Millennials and more youthful ages. Twenty to thirty year olds and Gen Z make up 30 and 32 percent of the populace, individually, making huge market potential for plant-based foods. Normally, a plant-based nourishment customer spends over 61% more than the normal customer. [12]

5. DISCUSSIONS

The study aimed at exploring the technological opportunities and challenges to the unconventional protein and highlighted the abundance of options that are being created, talked about and elevated add to a more extensive talk about the issues of creature generation, which may profit all other options. Then again, there is plainly rivalry among the choices for consideration, motivation and speculations.

In these regards, novel, astonishing or cutting edge choices, for example, refined meat have a preferred position. The consideration of creative business visionaries is drawn by mechanical difficulties that fit monetary models of development. Thus, the most supportable elective experiences are spent on mechanically testing and culturally complex alternatives with a lower maintainability potential.

The causes and development pioneers of the more mechanically testing options are frequently outside the conventional nourishment part; the association of (previous) ICT and web speculators or medicinal specialists bodes a potential for disturbing built up rural and nourishment industry designs.

Nourishment innovation organization KaTech is one of the numerous in the nourishment business that is responding to vegetarian development by offering helpful item substitutes dependent on plant fixings, which intend to accomplish a similar eating sensation as conventional non-veggie lover items. KaTech utilizes its stabilizer framework to build up a wide scope of great vegetarian items with probably the most recent model being another bread kitchen idea which defeats perhaps the greatest test in veggie lover prepared merchandise – conquering the loss of the usefulness of egg.[13]

The analysis gnerate recommendations for significant issues for future innovative work of meat choices. Firstly, the reflexive, integrative and relative heuristic can assist with

making an interpretation of general manageability objectives into explicit choices, which would then be able to be evaluated concerning their commitment to those objectives.

Secondly, the investigation proposes a need to relate development forms in the nourishment division all the more deliberately with supportability gains and less with innovative curiosity essentially. All the more explicitly, instead of supplanting maintainability plans with general mechanical advancement arrangements, as has been seen in manageability changes approach already (Kern and Smith, 2008), procedures are expected to create pathways towards critical supportability gains.

Thirdly, in the protein progress field, various suspicions about worldwide future interest and buyer goals are obviously connected to separating alternatives and pathways. A fourth issue are hindrances to cross-pathway learning and reflexivity, which may incorporate constrained logical acknowledgment for low-tech alternatives, trouble in altering the course of research and advancement programs, personal stakes, division of work and storehouse thinking.

Lastly, the strengthening or deterring factors for every option merit increasingly point by point consideration, including the supporting and restricting on-screen character alliances, the job of governmental issues and personal stakes, the normativity of meat utilization, basic numbness about maintainability ramifications of meat utilization and bottlenecks in cultural motivation setting for this theme. [14]

Plant-based or vegetarian situated items are obviously increasing expanded rack space as purchasers become progressively open to the possibility of an eating routine that does exclude creature items, or if nothing else genuinely diminishes them However, jumps despite everything stay as far as generation, yet the business is reacting at a quick pace. From littler organizations and new companies to fixing mammoths, development is happening no matter how you look at it, offering a huge number of chances for pioneers. [15]

In food industry, there is the issue of how these various segments or components communicate with one another. Fail to understand the situation and certain mixes can create unforeseen and upsetting tastes or undesired responses. The issue, as San Martin calls attention to, is that "the connections between the mixes are perplexing," which implies that numerous things can turn out badly in unforeseeable manners.

Unwinding such a large number of factors is an awesome procedure. Be that as it may, this is actually where AI can be helpful. Rather than physically tasting and hoping to hit a big stake by sheer possibility, AI utilizes are progressively coherent methodology. It does as such through AI, a procedure that fundamentally permits a PC to figure out how to tackle an issue by trying and coming up short at it ordinarily. It is utilized for taking care of a wide range of issues, from distinguishing your face in an image to helping specialists spot malignant growth.

While the AI doesn't get it directly at the first occasion when, it improves with each mix-up, regularly helped by human input. The outcomes can be amazing. Hampton Creek as of late found the detached protein of an Indian vegetable called mung bean has comparative properties to fried eggs. One of NotCo's most stunning definitions is its chocolate model: a peculiar blend of broccoli, goji berries, champignon mushrooms and a nut, whose name, tragically, they won't share with us. [16]

6. CONCLUSION

Current degrees of meat utilization not just surpass dietary protein prerequisites in numerous nations, they are likewise unfeasible. Our investigation proposes that innovative and conceivably problematic novel alternatives require a high level of cultural coordination to make them suitable.

Far reaching desires that such developments are required to take care of the issues of meat infer a general disregard of existing options that permit progressively quick and noteworthy manageability increases, most outstandingly beats. Thus, the need given to meat options with restricted sustainability and supportability potential isn't only an issue of mechanical or technological advancement of generation frameworks, yet in addition a second request issue surrounding, organize building, presumptions about development and financial innovative creative mind.

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BEYOND THE SCREEN: NAVIGATING CHALLENGES IN ONLINE TEACHING AND VIRTUAL LABS

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Abstract - As the world increasingly turns to online platforms for education, particularly in the wake of global events such as the COVID-19 pandemic, educators face a myriad of challenges in transitioning traditional classroom activities to virtual environments. This paper explores the complexities and hurdles encountered by educators when conducting online teaching and implementing virtual labs. Drawing upon existing literature, practical experiences, and emerging trends, we delve into the multifaceted landscape of online education, identifying key challenges and proposing strategies to address them. From technological limitations to pedagogical concerns, we examine the various dimensions of online teaching and virtual labs, offering insights to educators seeking to navigate this rapidly evolving terrain. By understanding these challenges and adopting innovative approaches, educators can enhance the effectiveness and engagement of online learning experiences.

Keywords: Online teaching, virtual labs, distance education, technological challenges, pedagogical strategies, educational technology, student engagement, virtual classroom, STEM education, institutional support, student success, blended learning, case studies, best practices.

1. INTRODUCTION

The landscape of education has undergone a seismic shift in recent years, propelled by advancements in technology and catalyzed by unprecedented global events such as the COVID-19 pandemic. As traditional classrooms have given way to virtual environments, educators find themselves grappling with a host of challenges in the realm of online teaching and virtual labs. This paper aims to explore the multifaceted nature of these challenges, shedding light on the complexities inherent in navigating the digital frontier of education.

1.1 Background of Online Education

Online education, once considered a niche alternative to traditional brick-and-mortar institutions, has now become a ubiquitous presence in the educational landscape. With the proliferation of internet access and the increasing sophistication of digital technologies, online learning platforms have witnessed exponential growth, offering learners around the world unprecedented access to educational resources and opportunities. From massive open online courses (MOOCs) to virtual classrooms and interactive simulations, the spectrum of online learning modalities continues to expand, reshaping the way knowledge is disseminated and acquired.

1.2 Importance of Addressing Challenges

Despite the promise and potential of online education, its widespread adoption has been accompanied by a host of challenges, both technological and pedagogical in nature. From ensuring equitable access to resources and overcoming digital divides to fostering meaningful engagement and interaction in virtual settings, educators confront a myriad of hurdles in delivering effective online instruction. Moreover, the transition from traditional teaching methods to online formats necessitates a reevaluation of pedagogical approaches

and instructional design principles, demanding innovative solutions to meet the evolving needs of learners in digital environments

2. TECHNOLOGICAL CHALLENGES

In the realm of online education, technological challenges represent a significant barrier to effective teaching and learning. From issues of accessibility and connectivity to the digital infrastructure required for delivering high-quality instruction, educators must navigate a myriad of technological hurdles to ensure equitable access and engagement for all learners. This section examines key technological challenges encountered in online teaching and proposes strategies for overcoming them.

2.1 Accessibility and Connectivity Issues

Access to reliable internet connectivity and suitable devices remains a pervasive challenge for many learners, particularly those in underserved communities or remote areas. Limited access to broadband internet, inadequate hardware, and disparities in digital literacy exacerbate existing inequalities in education. Furthermore, learners with disabilities may encounter additional barriers related to accessibility, such as compatibility issues with assistive technologies and screen readers. Addressing these challenges requires concerted efforts to improve infrastructure, expand broadband access, and provide support for learners with diverse needs. Additionally, educators can employ strategies such as optimizing content for low-bandwidth environments, offering offline access options, and providing alternative formats to accommodate different learning preferences and abilities.

2.2 Hardware and Software Requirements

The effectiveness of online teaching hinges on the availability of appropriate hardware and software tools that facilitate seamless interaction and collaboration. However, not all learners may have access to the requisite devices or software licenses needed for participation in virtual classrooms or engagement with digital course materials. Moreover, compatibility issues between different platforms and operating systems can hinder the smooth delivery of online instruction. Educators must strive to minimize technological barriers by selecting user-friendly platforms that support a wide range of devices and operating systems. Additionally, providing guidance on software installation, troubleshooting common technical issues, and offering alternatives for learners with limited access to specific tools can enhance accessibility and inclusivity in online learning environments.

2.3 Digital Divide and Equity Concerns

The digital divide, characterized by disparities in access to technology and digital resources, poses a fundamental challenge to the equitable delivery of online education. Socioeconomic factors, geographic location, and institutional support systems contribute to unequal access to digital learning opportunities, perpetuating systemic inequalities in education. Bridging the digital divide requires holistic interventions aimed at addressing underlying socioeconomic disparities, investing in infrastructure development, and advocating for policies that promote universal access to technology. Additionally, educators can leverage community partnerships, mobile learning initiatives, and innovative delivery methods to reach learners in underserved areas and marginalized communities. By prioritizing equity and inclusion in online education initiatives, educators can empower learners from diverse backgrounds to thrive in digital learning environments.

3. PEDAGOGICAL CHALLENGES

In the realm of online education, pedagogical challenges are central to the effective delivery of instruction and the attainment of learning outcomes. The shift from traditional face-to-face teaching to virtual environments necessitates a reevaluation of instructional strategies, student engagement techniques, and assessment practices. This section explores key pedagogical challenges encountered in online teaching and proposes strategies for addressing them.

3.1 Maintaining Student Engagement

Sustaining student engagement in virtual classrooms presents a significant challenge for educators, as the absence of physical presence and direct interaction can diminish opportunities for active participation and meaningful learning experiences. Learner motivation may wane in the absence of real-time feedback, peer interaction, and hands-on activities. To mitigate this challenge, educators can employ a variety of strategies to foster engagement, including:

- Incorporating multimedia elements such as videos, animations, and interactive simulations to enhance content delivery and stimulate interest.
- Facilitating asynchronous and synchronous discussions through online forums, video conferencing, and collaborative platforms to promote peer interaction and knowledge sharing.
- Implementing gamification techniques such as badges, leaderboards, and rewards to incentivize participation and promote a sense of accomplishment.
- Providing opportunities for student choice and autonomy in selecting learning activities and assignments to increase intrinsic motivation and ownership of learning.

3.2 Adapting Teaching Methods for Virtual Environments

The transition to online teaching requires educators to adapt traditional teaching methods to suit the unique characteristics of virtual environments. Pedagogical approaches that are effective in face-to-face settings may need to be modified or supplemented to accommodate the asynchronous nature of online learning and the diverse needs of learners. Some strategies for adapting teaching methods in virtual environments include:

- Utilizing a blended learning approach that combines synchronous and asynchronous activities to maximize flexibility and engagement.
- Implementing flipped classroom models, where instructional content is delivered online before class, allowing in-person or virtual sessions to focus on active learning and application of concepts.
- Incorporating collaborative learning activities such as group projects, peer review exercises, and virtual simulations to promote social interaction and cooperative problem-solving.
- Providing scaffolding and support for self-directed learning through guided inquiry, online tutorials, and interactive learning modules.

3.3 Assessing Student Learning Effectively

Assessing student learning outcomes in online environments poses unique challenges related to authenticity, integrity, and fairness. Traditional assessment methods such as exams and quizzes may need to be adapted to ensure academic integrity and accurately measure student mastery of course content. Strategies for effective assessment in online teaching include:

- Implementing authentic assessment tasks that reflect real-world contexts and require higher-order thinking skills, such as case studies, project-based assignments, and portfolios.

- Leveraging technology-enabled assessment tools such as online quizzes with randomized questions, auto-grading features, and plagiarism detection software to streamline the assessment process and maintain academic integrity.
- Providing timely and constructive feedback on student performance through personalized comments, rubrics, and peer assessment activities to support ongoing learning and skill development.
- Employing formative assessment strategies such as pre-tests, self-assessments, and concept maps to gauge student understanding and inform instructional decisions in real time.

4. DESIGNING EFFECTIVE VIRTUAL LABS

Virtual labs play a crucial role in online education, particularly in disciplines such as science, technology, engineering, and mathematics (STEM), where hands-on experimentation and practical application are essential for mastery of concepts. Designing effective virtual labs requires careful consideration of instructional goals, technological capabilities, and pedagogical principles to create engaging and authentic learning experiences. This section explores key considerations and best practices for designing virtual labs that enhance student learning and promote inquiry-based exploration.

4.1 Importance of Hands-On Experiences in STEM Education

Hands-on laboratory experiences are foundational to STEM education, allowing students to apply theoretical knowledge, develop critical thinking skills, and engage in authentic scientific inquiry. Virtual labs provide an opportunity to simulate real-world experiments and phenomena in a controlled digital environment, offering students access to hands-on learning experiences that may be otherwise inaccessible due to logistical constraints or safety concerns. By designing virtual labs that replicate the hands-on experience of traditional laboratories while leveraging the capabilities of digital technology, educators can enhance the effectiveness and accessibility of STEM education for diverse learners.

4.2 Simulations vs. Authentic Lab Experiences

Virtual labs encompass a spectrum of activities ranging from simulations and virtual experiments to remote access to physical laboratory equipment. Each approach offers unique advantages and challenges, and the choice between simulations and authentic lab experiences depends on instructional goals, resource availability, and technological constraints. Simulations provide opportunities for repeated experimentation, immediate feedback, and controlled variables, making them ideal for introducing concepts, demonstrating principles, and exploring hypothetical scenarios. On the other hand, authentic lab experiences involve hands-on manipulation of real materials and instruments, allowing students to develop practical skills, troubleshoot experimental challenges, and confront the complexities of scientific inquiry. By integrating both simulations and authentic lab experiences into virtual learning environments, educators can cater to diverse learning styles and provide a balanced approach to laboratory instruction.

4.3 Creating Interactive and Immersive Virtual Lab Environments

Effective virtual labs engage students through interactive interfaces, immersive visuals, and realistic simulations that replicate the sights, sounds, and sensations of a physical laboratory. Key elements of interactive virtual lab environments include:

- Intuitive user interfaces that facilitate navigation, manipulation of equipment, and data analysis.

- High-quality graphics, animations, and multimedia elements that enhance realism and captivate learners' attention.
- Interactive controls and customizable parameters that allow students to adjust experimental conditions, explore different variables, and observe outcomes in real time.
- Embedded prompts, hints, and feedback mechanisms that scaffold learning and guide students through the experimental process.
- Integration of data collection tools, sensors, and instrumentation to simulate authentic laboratory procedures and measurements.

4.4 Providing Adequate Guidance and Support

In virtual labs, providing students with clear instructions, guidance, and support is essential for promoting successful learning outcomes and minimizing frustration. Educators can enhance the effectiveness of virtual labs by:

- Providing pre-lab resources such as background information, conceptual frameworks, and instructional videos to prepare students for the experiment.
- Offering step-by-step instructions, procedural guides, and safety protocols to ensure that students understand the experimental procedure and can perform tasks accurately.
- Embedding contextualized help features, tooltips, and tutorials within the virtual lab interface to assist students in troubleshooting common issues and mastering experimental techniques.
- Facilitating opportunities for reflection, discussion, and collaboration through post-lab activities, data analysis exercises, and virtual lab reports that encourage synthesis of learning and application of concepts.

5. OVERCOMING INSTITUTIONAL CONSTRAINTS

In addition to technological and pedagogical challenges, educators in the realm of online teaching must navigate institutional constraints that can impact the implementation and sustainability of online education initiatives. Institutional constraints encompass a range of factors, including resource allocation, faculty support, institutional policies, and curriculum integration. This section examines key institutional constraints and proposes strategies for overcoming them to promote the success of online education endeavors.

5.1 Resource Allocation for Online Education Initiatives

Adequate resource allocation is essential for the successful implementation of online education initiatives, including investments in technology infrastructure, instructional design support, faculty training, and student support services. However, limited financial resources and competing priorities may pose challenges for institutions seeking to expand their online offerings. To address resource constraints effectively, institutions can:

- Prioritize funding and allocate resources strategically to support the development and maintenance of high-quality online courses and virtual learning environments.
- Seek external funding opportunities through grants, partnerships, and philanthropic support to supplement institutional budgets and enhance capacity for online education initiatives.
- Invest in scalable technology solutions and infrastructure upgrades to ensure the reliability, scalability, and security of online learning platforms and digital resources.
- Establish cross-functional teams or task forces dedicated to overseeing online education initiatives and coordinating resource allocation efforts across departments and units.

5.2 Faculty Training and Support

Faculty development plays a crucial role in the successful adoption and integration of online teaching practices within higher education institutions. However, faculty members may face barriers such as lack of training, time constraints, and resistance to change when transitioning to online teaching. To support faculty in overcoming these challenges, institutions can:

- Offer comprehensive training programs and workshops on online pedagogy, instructional design, and technology tools to equip faculty with the knowledge and skills needed to effectively teach in virtual environments.
- Provide ongoing support and mentoring for faculty as they design, develop, and deliver online courses, including access to instructional designers, educational technologists, and peer mentors.
- Recognize and reward faculty contributions to online education through incentives such as professional development grants, teaching awards, and promotion opportunities that value and incentivize engagement in online teaching.
- Foster a culture of innovation and collaboration by establishing communities of practice, sharing best practices, and facilitating peer learning opportunities among faculty members engaged in online education initiatives.

6 PROMOTING STUDENT SUCCESS

Ensuring the success of students in online education environments is a multifaceted endeavor that requires proactive support, personalized interventions, and a student-centered approach to teaching and learning. In online settings, students may face unique challenges related to self-regulation, time management, technological proficiency, and social connectedness. This section explores strategies for promoting student success in online education by addressing these challenges and fostering a supportive learning environment conducive to academic achievement and personal growth.

6.1 Building a Sense of Community

Establishing a sense of community is essential for fostering engagement, motivation, and belongingness among online learners. In virtual environments, students may feel isolated and disconnected from their peers and instructors, leading to diminished learning experiences and lower retention rates. To promote a sense of community in online courses, educators can:

- Facilitate opportunities for social interaction and collaboration through discussion forums, group projects, and virtual study groups where students can engage with each other and build relationships.
- Create icebreaker activities and introductions at the beginning of the course to help students get to know each other and establish rapport with their classmates and instructors.
- Incorporate synchronous sessions, such as live lectures, office hours, and virtual events, to provide opportunities for real-time interaction and communication among students and instructors.
- Encourage active participation and contribution to class discussions, peer feedback, and collaborative learning activities to foster a sense of ownership and investment in the learning community.

7. CONCLUSION

In the rapidly evolving landscape of online education, addressing the myriad challenges and opportunities inherent in virtual teaching and learning is essential for the success and sustainability of educational endeavors. Throughout this exploration of technological,

pedagogical, institutional, and student-centered dimensions, several key themes have emerged, highlighting the complexities and potential of online education.

From overcoming technological barriers to fostering student engagement and promoting inclusivity, educators and institutions face a range of challenges in navigating the digital frontier of education. However, with these challenges come opportunities for innovation, collaboration, and transformation in teaching and learning practices. By leveraging technology-enabled tools, adopting learner-centered approaches, and fostering a culture of continuous improvement, educators can create dynamic and inclusive online learning environments that empower students to succeed in the digital age.

Furthermore, addressing institutional constraints and promoting systemic change are crucial for advancing the broader goals of accessibility, equity, and quality in online education. By allocating resources strategically, providing faculty training and support, revising institutional policies, and integrating online components into existing curriculum structures, institutions can create an enabling environment for the effective delivery of online education initiatives.

Ultimately, the success of online education hinges on the collective efforts of educators, institutions, policymakers, and stakeholders to embrace innovation, collaboration, and inclusivity in the pursuit of educational excellence. By embracing the challenges and opportunities of online teaching and learning, we can unlock the transformative potential of technology-enabled education to expand access, enhance quality, and empower learners to thrive in an increasingly interconnected and digital world.

As we chart the course forward in the realm of online education, let us remain committed to fostering a culture of continuous learning, adaptability, and resilience, guided by a shared vision of equity, access, and excellence for all learners. Through collaborative partnerships, interdisciplinary dialogue, and a relentless commitment to student success, we can shape a future where online education serves as a catalyst for positive social change and lifelong learning opportunities for learners worldwide.

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