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Students' Perception towards Learning Platforms – A Comparative Analysis of Online and Offline Learning

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ABSTRACT

The purpose of this study is to find out college students perception towards the learning platforms and their priorities with regard to online learning as well as offline learning. Rapid developments in education technology have provided many new options of learning to students and thus made this research important to determine their preferences for the same. Moreover due to covid-19, the students have fresh experience of online learning which would make the comparison more relevant. The study makes comparison of online education and traditional way of education from the point of view of Post - Graduate students from M.COM, MBA, MA (economics), M.SC, and M.TECH respectively. To know their perception and preference, online questionnaire was constructed via Google form and data was collected from 100 respondents. 10 variables based on 5 point likert scale have been used to analyze the perception. These variables include Convenience, Flexibility, Teacher – student interaction, accessibility in terms of time and cost, Freedom in learning, Doubt clarity, Learning experience, Content analysis, Adaptability and performance evaluation. This preliminary analysis of students' perception will determine whether there are statistically significant differences between online learning and offline learning, and preference for online learning technology between gender groups and between post graduate students from different educational qualifications and family income, along with investigating the reasons for their preference.

Keywords-- Online Learning, Offline Learning, Perception

I. INTRODUCTION

Online and offline learning are like two sides of the same coin with 'imparting quality education' being their prime goal. Both these learning platforms have their own merits and de-merit which serves as a basis of students' opinions about them. Variables considered for the study are convenience, flexibility, teacher-student interaction, accessibility, freedom in learning, doubt-clarity, learning experience, content analysis, adaptability and performance evaluation. These variables are studied using response of 100 respondents by following questionnaire method of data collection.

1.1 Online Learning

Online learning often referred to as "e-learning" refers to the education that takes place with the help of internet. It has been defined by different researchers differently. **Guri-Rosenblit (2005)** says "E-learning is the use of electronic media for a variety of learning purposes that range from add-on functions in conventional classrooms to full substitution for the face-to-face meetings by online encounters". **Gonzalez-Videgaray (2007)** says "E-learning is learning based on information and communication technologies with pedagogical interaction between students and the content , students and the instructors or among students through the web".

1.2 Offline Learning

Offline Learning is learning in a physical location, typically a lecture hall, college or classroom. Sometimes referred to as traditional learning, offline learning is different from online learning as in the later, the machine learning program works in real time on the data that comes in, unlike the former one.

II. LITERATURE REVIEW

There has been a lot of research done on learning platforms by many scholars. Following are few of the previous research findings on the topics of students' perception of online learning, students' opinions on traditional learning in comparison to e-learning, perceptions of distance learning and effectiveness of blended learning concepts and the difference in their perception on account of gender and the impact of these learning platforms on students' performance.

Hislop (1999) suggested to maintain student-lecturer interaction in his study and also stated that the online courses required more mature students who prefer flexibility in their study i.e. students need to be more disciplined and that they require a transitional period to adjust to the new learning environment.

Beare (1989) found that students disliked distance learning and had feelings of jealousy towards traditional in-class students, perhaps because of their connection and interaction with the instructor.

Harrington (1999) compared classroom and online statistics for master's level social work students and suggested that students who previously have been successful academically can do just as well with a distance learning approach as can students in a traditional classroom course.

Karen J. Jeannette and Mary Hockenberry Meyer (2002) in their study for comparison of online learning and traditional classroom training in Master Gardener Core Course/Horticulture stated that overall online training was more effective method for teaching master gardeners in their study.

According to **Bisciglia and Monk-Turner (2002)** ,students who work full time and attend class off-campus have a more positive attitude towards distance learning when compared to others. They are also more likely to be motivated and willing to take other distance learning courses when given that option.

Dunbar (2004) conducted a survey where the students were given the options to either have a live instructor or to take the class online. The results found that the majority of students opted for the online class.

Drennan, Kennedy and Pisarski (2005), found in a recent study of 250 students that student satisfaction is influenced by positive perceptions towards technology and an autonomous learning mode. They also stated that students may react differently to the online learning environment, depending on their skill levels and attitudes.

Coppola et.al (2002) stated that the mental processes of learning, information storage and thinking shift from a superficial to a deeper cognitive level takes place when both faculty and students move from a traditional offline system to an online one.

Smart and Cappel (2006), highlighted that e-learning has the potential to enhance teaching and learning compared to what can be achieved if it was done in the face to face only approach.

Maureen Hannay and Tracy Newvine (2006) in their study on perceptions of distance learning using primary data of 217 students highlighted that distance learning is more applicable to an older student population or to commuter campuses rather than to the traditional undergraduate population of 18-21 year old on campus students. They also highlighted the need of more 'hybrid' courses into the learning curriculum.

Osgerby (2013) investigated students' perception of the introduction of a blended learning environment and concluded that while students appeared to have a positive attitude to the adoption of an organized and well-structured online based learning process, they preferred face to face lectures and step-by-step instruction.

Bhavna Khatri, Pradeep Chouskey, Manmohan Singh (2013) stated that though blended learning involves cost, but is more effective than e-learning or traditional learning alone. They highlighted that e-learning will give a new direction for the effective learning and teaching methodology.

Derouza and Fleming (2003) compared undergraduates who completed quizzes online with students who took the traditional paper based quizzes and found that the marks revealed that students who took the quizzes online significantly outperformed students who took the pencil-and-paper quizzes.

S.L.Wong and Hanafi (2007) stated that female participants possessed a higher level of confidence and improved attitude after undergoing an online course. **Arbaugh (2000)**, on the other hand, stated that male students encountered more difficulty in using learning technology for class participation compared to their female counterparts. However a study by **Shaw and Marlow (1999)** did not reveal any gender imbalance in attitudes towards using technology for learning.

In **Bernard et al.'s (2014)** meta-study of blended learning in higher education, students in blended programs have turned out to achieve slightly better than students following traditional classroom instruction programs. Similar findings have been made by other studies- e.g. **Israel (2015), Northey et al (2015), Southard, Meddang and Harris (2015), Gonzalez-Gomez et al. (2016) and Ryan et al. (2016).**

Blended learning was examined by **Kurt and Yildirim (2018)** to determine student satisfaction and what they considered to be important features of the blended format. The results indicated that the students who participated, almost unanimously felt that blended learning was beneficial and that their own role and the instructor's role was central to their satisfaction.

Guven (2014) stated that in online learning, more students can learn from the same expert tutor, because it solves the physical distance problem. Teachers also find online teaching convenient in terms of timing, actual duration, concentration, transportation and payment **(Koutsoupidou, 2014)**

Dobbs et.al.,(2017) found that the students' reason for taking online courses included flexibility to accommodate work and family schedules, the ability to avoid commuting to the university and more online courses being available to them.

III. RESEARCH METHODOLOGY

3.1 Statement of Problem

Offline learning has some difficulties in the form of lack of flexibility, travel time and cost whereas online learning suffers from limitations of interactivity, accessibility, etc. So the question arises 'Which learning platform is most suitable to widen the scope of learning'?

3.2 Need of Study

Although many studies comparing online with traditional learning environments have been conducted but no study has been conducted covering students from five different educational qualifications from Ludhiana city, so accordingly this research works to fulfill this gap.

3.3 Objectives

3.3.1 To study the perception of post-graduation students towards online and offline learning environments.

3.3.2 To examine the impact of gender, educational qualification and family income towards online and offline learning platforms.

3.3.3 To critically analyze the reasons for preferring online and offline learning platforms.

3.4 Research Design

In this research, descriptive design has been used..

3.5 Sources of Data

3.5.1 Primary Data

The primary data includes responses of 100 post-graduate students collected with the help of a questionnaire.

3.5.2 Secondary Data

Various sources like websites, journals, articles, books and project reports have been considered for the study.

3.6 Data Collection Method

There are mainly two methods of primary data collection- survey method and observation method. For the purpose of this research study, survey technique of data collection has been adopted.

3.7 Population

Population for this study is the post – graduate students from M.COM, MBA, MA (economics), M.SC, and M.Tech respectively.

3.8 Sampling Method

Use of convenience sampling method under non – probability sampling technique has been considered for the study.

3.9 Sampling Frame

The sample for the research is taken from Ludhiana city only.

3.10 Sampling Size

The sample size of the survey is 100

3.11 Data Collection Instrument

For this research, questionnaire is used as a tool for primary data collection and internet access for secondary data collection. It includes multiple choice and likert scale type of questions. A pilot study of 10 respondents was conducted to check the authencity of the questionnaire.

3.12 Analysis Tools

The analysis tools used in the research is Google form and Microsoft Excel software.

3.13 Statistical Test

Descriptive statistics has been used in the research.

3.14 Scope of Study

The study covers 100 post-graduation students from Ludhiana city.

3.15 Limitations of the Study

The limitations of the study centered around the limited size of the sample taken due to the time constraints and the inefficiency to conduct personal interviews owing to the covid-19 situation.

IV. DATA ANALYSIS AND INTERPRETATION

4.1 Do You Have Access to Computer and Internet

Options	**Frequency**	**Percentage**
Yes	94	94%
No	0	0%
Sometimes	6	6%
Total	100	100%

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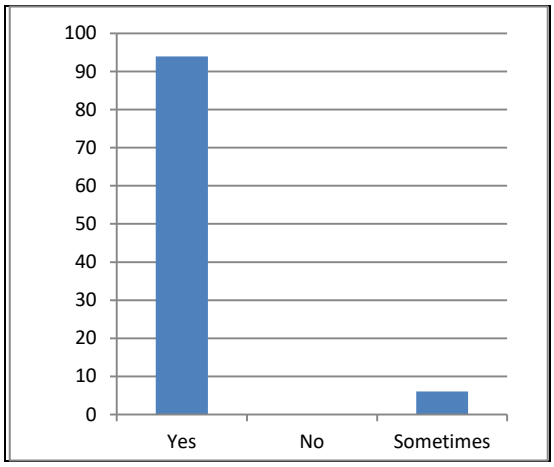
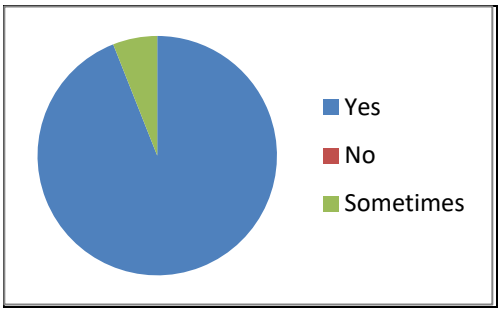


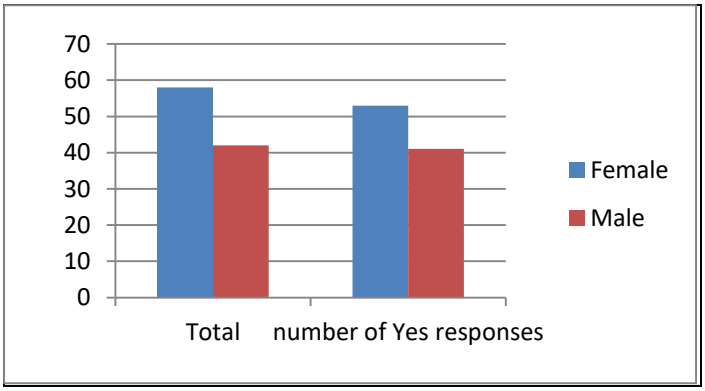


Interpretation

Out of the total of 100 respondents, 94% students have access to computer and internet while 6% respondents sometimes get access to this facility. None of the respondents replied in negative to the question. So it can be stated that almost all the respondents do have access to computer and internet whether always or sometimes.

4.1.1 Analysis on the Basis of Gender

Gender	Total	Number of yes responses	Number of sometimes responses	Percentage of sometimes response
Female	58	53	5	9%
Male	42	41	1	2%



The total number of females in the study is 58 and the males are 42. As per the percentage females have comparatively more "Sometimes" responses over males, although the availability of internet and computer cannot vary as per the gender, but according to this data of 100 respondents, males show comparatively better access to this facility.

4.1.2 Analysis on the Basis of Educational Qualification

Educational Qualification	Total	Number of Yes responses	Percentage of Yes responses
M.Com	20	19	95%
MBA	20	20	100%
MA(Economics)	20	18	90%
M.Sc	20	18	90%
M.TECH	20	19	95%

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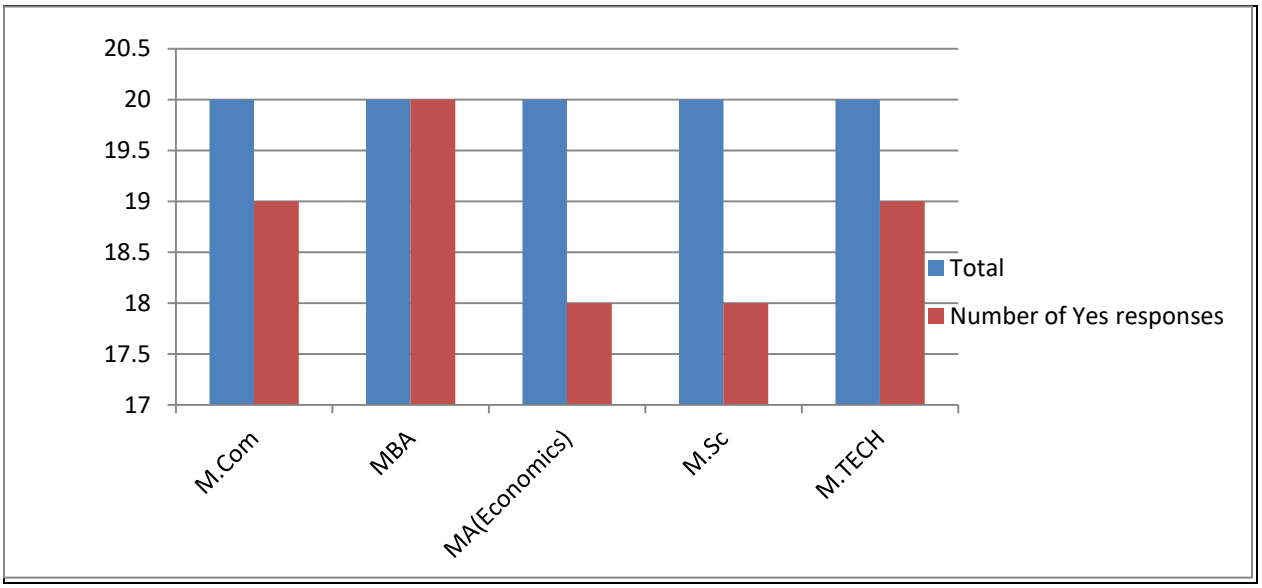
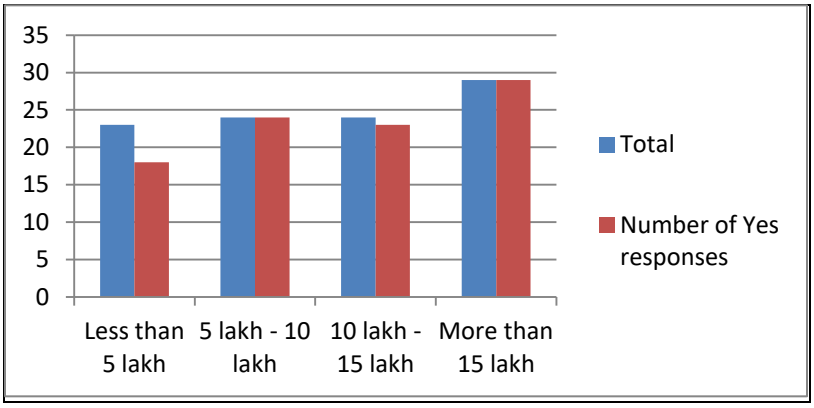


Here, all the MBA students said yes to having computer and the internet facility while M.Com and M.TECH share the same percentage of Yes responses i.e. 95%, the least percentage of 90% is shared by the remaining two streams i.e. MA(Economics) and M.Sc.

4.1.3 Analysis on the Basis of Annual Family Income

Annual family income	**Total**	**Number of yes responses**	**Percentage of yes responses**
Less than 5 lakh	23	18	78%
5 lakh - 10 lakh	24	24	100%
10 lakh - 15 lakh	24	23	96%
More than 15 lakh	29	29	100%
Total	100	94	



Out of 100 respondents, the number of respondents whose annual family income falls below 5 lakh are 23, between 5 lakh – 10 lakh are 24, between 10 lakh – 15 lakh are 24 and more than 15 lakh is 29. If the accessibility to computer and internet is compared with the respondent's family income, it can be stated that the

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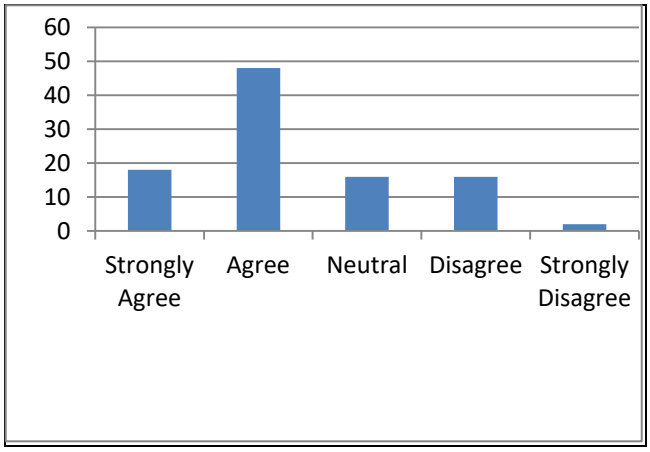
persons whose family income is less than 5 lakh have relatively less percentage of Yes responses as compared to other income group respondents.

So it can be stated that the computer and internet facility availability to some extent (particularly for less than 5 lakh income group) varies with regard to their annual family income.

4.2 *Please Mark the Following As Per Your Preferences*

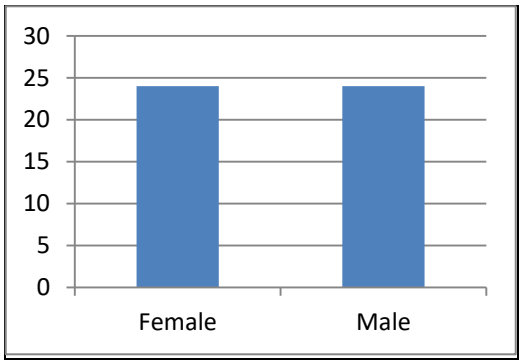
4.2.1 Online Learning is More Convenient than Offline Learning



Options	Total
Strongly Agree	18
Agree	48
Neutral	16
Disagree	16
Strongly Disagree	2
Total	100

In case of **Convenience Factor**, Majority of the respondents agree that **online learning is more convenient than offline learning** i.e. around 50% of the respondents agree to the same.

Analysis on the Basis of Gender (Of Agree Responses)



Gender	Number of agree responses	Percentage
Female	24	50%
Male	24	50%
Total	48	100%

There is clearly no gender wise difference when it comes to the convenience factor i.e. both males and females share the same opinion that online learning is more convenient than offline learning.

Analysis on the Basis of Educational Qualification (Of Agree Responses)

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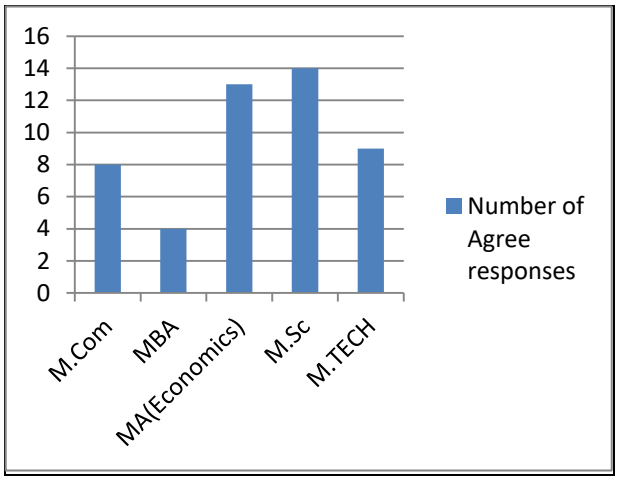
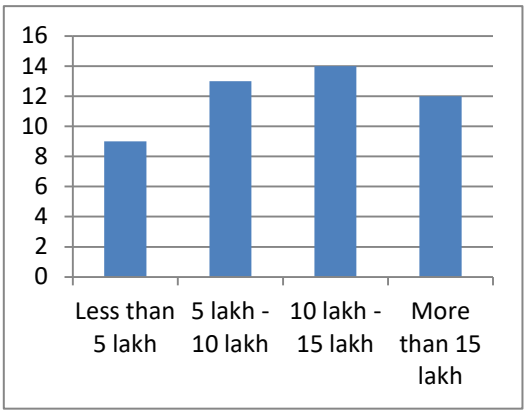


Educational qualification	Number of agree responses	Percentage of agree responses
M.Com	8	17%
MBA	4	8%
MA(Economics)	13	27%
M.Sc	14	29%
M.TECH	9	19%
Total	48	100%

Here both M.Sc and MA (Economics) students agree to the convenience factor while the agree rate is low for M.tech and M.Com and is the lowest for the MBA stream. I.e. MSc stream students clearly find online learning more convenient than offline learning as compared to MBA

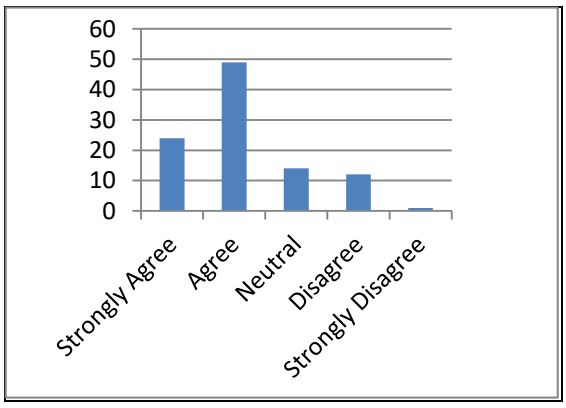
Analysis on the Basis of Annual Family Income (Of Agree Responses)



Annual Family income	Agree responses	Percentage
Less than 5 lakh	9	19%
5 lakh - 10 lakh	13	27%
10 lakh - 15 lakh	14	29%
More than 15 lakh	12	25%
Total	48	100%

The response rate varies with regard to income levels, with least agree rate found among students having family income of less than 5 lakh annually

4.2.2 Online Learning Offers Better Flexibility over Offline Learning



Options	Total
Strongly Agree	24
Agree	49
Neutral	14
Disagree	12
Strongly Disagree	1
Total	100

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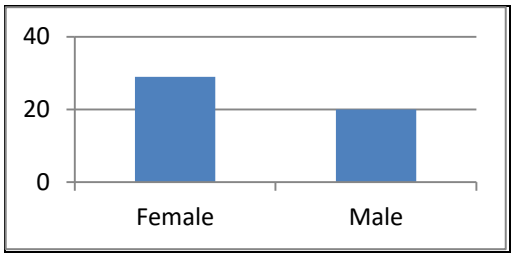
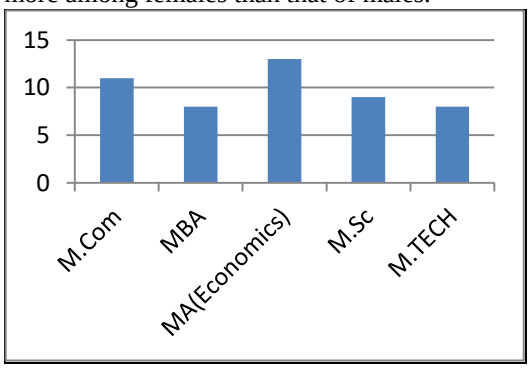
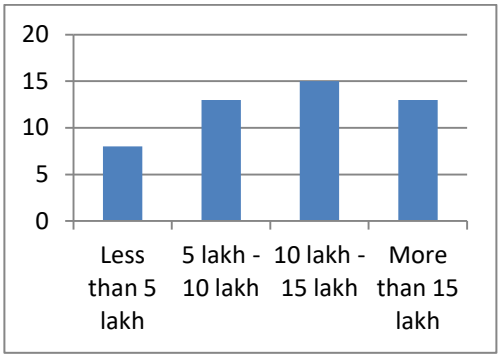
49% of the respondents agree to the fact that **Online Learning offers better flexibility over offline learning** i.e. majority of them agree to this variable.



The agree rate to the statement that online learning offers better flexibility over offline learning is more among females than that of males.



Out of the total agreed responses, the majority of Agree Reponses are from MA(Economics), i.e. this stream have more agreed responses to the statement that Online Learning offers better flexibility over offline learning



Respondents with family income of less than 5 lakh have lowest rate of agree responses to the statement that online learning offers better flexibility over offline learning i.e. the response varies with regard to lower income group as compared to others

Analysis on the Basis of Gender (Of Agree Responses)

Gender	Agree responses	Percentage
Female	29	59%
Male	20	41%
Total	49	100%

Analysis on the Basis Of Educational Qualification (Of Agree Responses)

Educational Qualification	Number of Agree responses	Percentage of Agree Responses
M.Com	11	22%
MBA	8	16%
MA(Economics)	13	27%
M.Sc	9	18%
M.TECH	8	16%
Total	49	100%

Analysis on the Basis of Annual Family Income (Of Agree Responses)

Annual Family income	Agree responses	Percentage
Less than 5 lakh	8	16%
5 lakh – 10 lakh	13	27%
10 lakh – 15 lakh	15	31%
More than 15 lakh	13	27%
Total	49	100%

4.2.3 Teacher-Student Interaction is More in Online Environment Over Offline One

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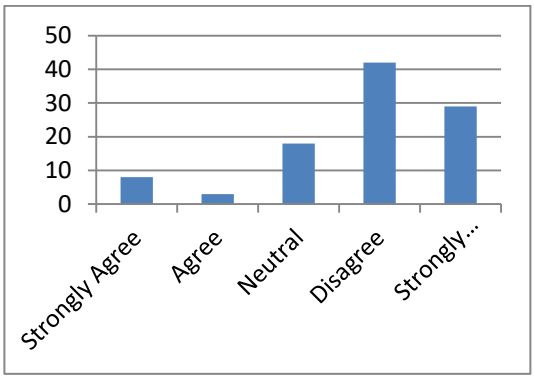
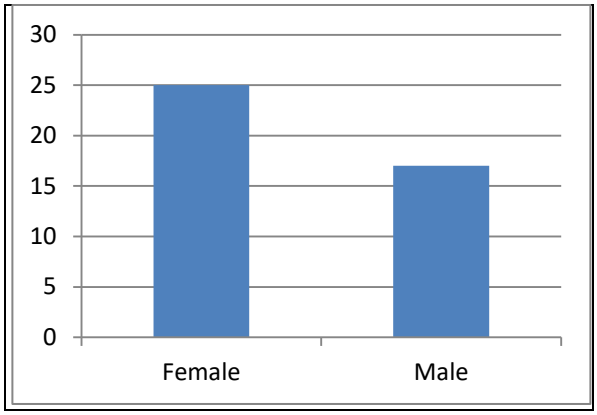


Options	Total
Strongly Agree	8
Agree	3
Neutral	18
Disagree	42
Strongly Disagree	29
Total	100

42% of the respondents disagree with the statement that Teacher-Student interaction is more in online environment over offline one while only 3% agrees to the same

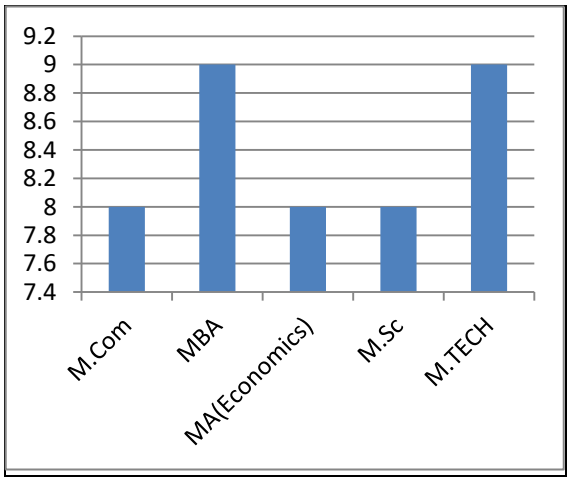
Analysis on the Basis of Gender (Of Dis – Agree Responses)



Gender	Number of dis-agree responses	Percentage
Female	25	60%
Male	17	40%
Total	42	100%

The rate of dis-agreement to the statement that teacher-student interaction is more in online environment over offline varies with regard to gender, with female number of dis-agree responses(25), being more than that of males(17)

Analysis on the Basis of Educational Qualification (Of Dis – Agree Responses)



Educational Qualification	Number of Dis- agree responses	Percentage
M.Com	8	19%
MBA	9	21%
MA(Economics)	8	19%
M.Sc	8	19%
M.TECH	9	21%
Total	42	100%

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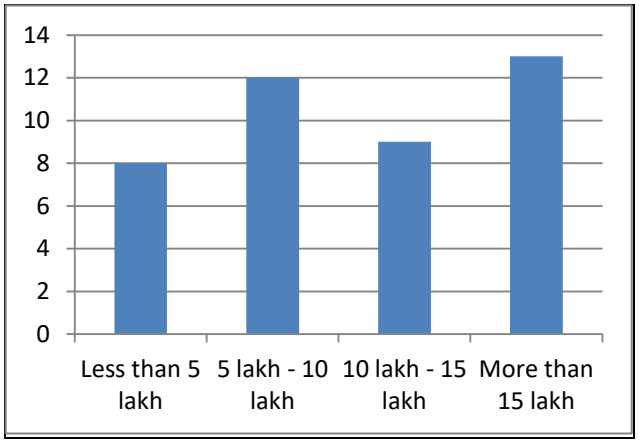
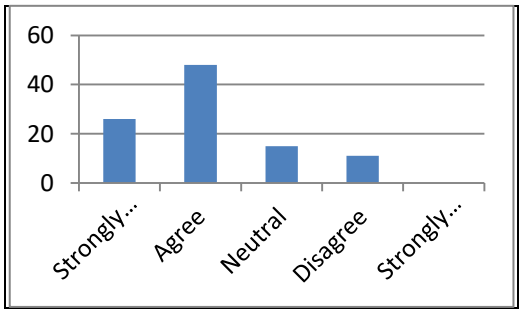
Here, all the educational qualifications have almost the same perception towards teacher – student interaction i.e. they all dis – agree with the statement that Teacher-Student interaction is more in online environment over offline one.



Analysis on the Basis of Annual Family Income (Of Dis – Agree Responses)

Annual Family income	Number of dis-agree responses	Percentage
Less than 5 lakh	8	19%
5 lakh - 10 lakh	12	29%
10 lakh - 15 lakh	9	21%
More than 15 lakh	13	31%
Total	42	100%

The response towards the argument against teacher-student interaction being more in online environment varies with regard to the annual family income, with maximum rate of disagreement (31%) found in students having family income of more than 15 lakh and minimum rate of dis-agreement (19%) found in students having family income of less than 5 lakh.

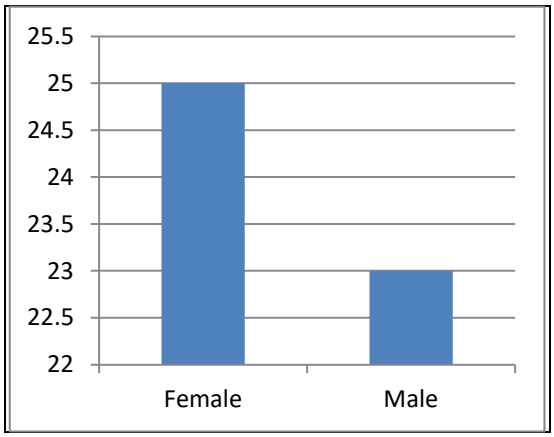


4.2.4 Online Platforms are More Accessible in Terms of Time And Cost Over Offline

Options	Total
Strongly Agree	26
Agree	48
Neutral	15
Disagree	11
Strongly Disagree	0
Total	100

48% respondents agree to it while not even a single respondent strongly dis-agrees to the statement that **Online Platforms are more accessible in terms of time and cost over offline.**

Analysis on the Basis Of Gender (Of Agree Responses)



Gender	Agree responses	Percentage
Female	25	52%
Male	23	48%
Total	48	100%

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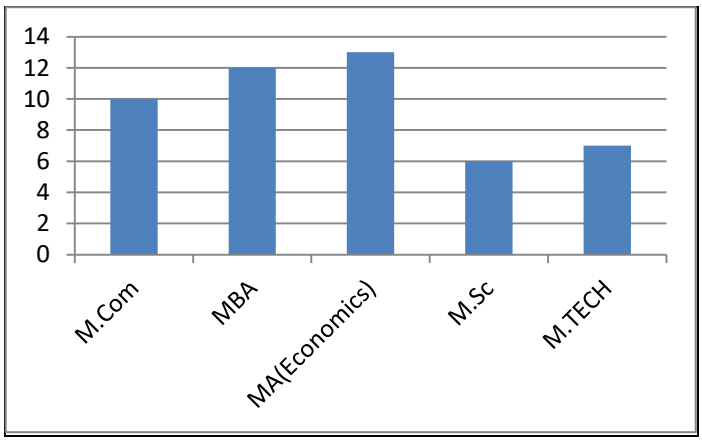
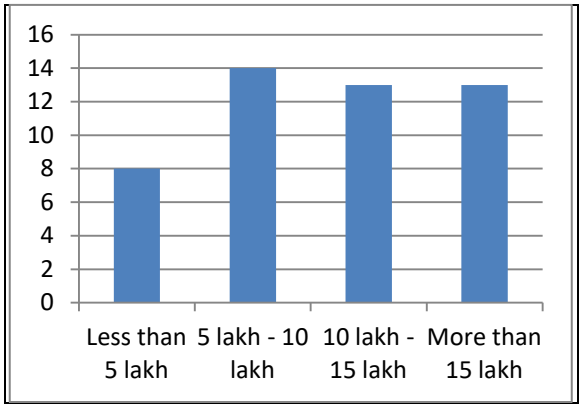
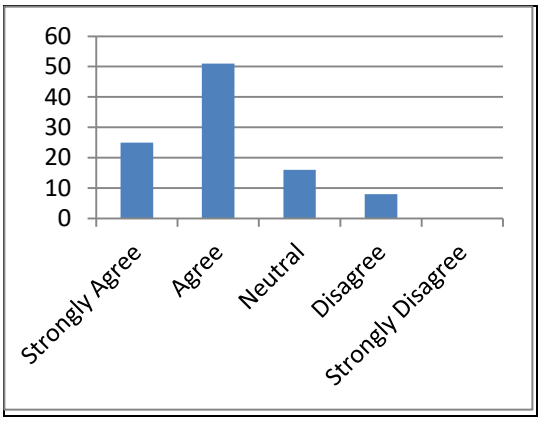
The agree rate towards the statement that online platforms are more accessible in terms of time and cost over offline is more among females compared to males.



The number of agree responses is highest among MA (Economics) stream while it is the least in case of M.SC stream.



The response towards accessibility of online platforms varies with regard to the family income with students having annual family income of less than 5 lakh finding online platforms less accessible as compared to the agree rate among students from the other income groups.



Analysis on the Basis of Educational Qualification (Of Agree Responses)

Educational Qualification	Number of agree responses	Percentage
M.Com	10	21%
MBA	12	25%
MA(Economics)	13	27%
M.Sc	6	13%
M.TECH	7	15%
Total	48	100%

Analysis on the Basis of Annual Family Income (Of Agree Responses)

Annual Family income	Agree responses	Percentage
Less than 5 lakh	8	17%
5 lakh - 10 lakh	14	29%
10 lakh - 15 lakh	13	27%
More than 15 lakh	13	27%
Total	48	100%

4.2.5 Freedom to Learn is More in Online Environment

Options	Total
Strongly Agree	25
Agree	51
Neutral	16
Disagree	8
Strongly Disagree	0
Total	100

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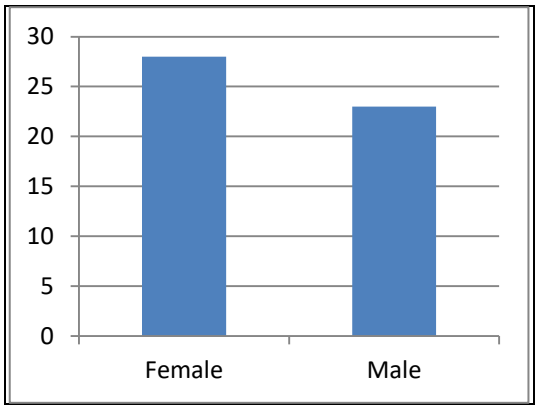
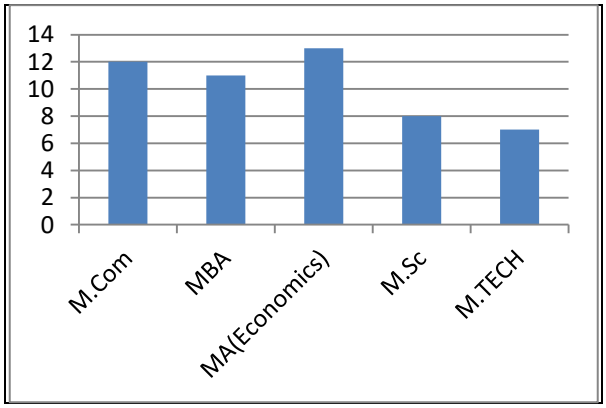
More than 50% agree with the fact that Freedom to learn is more in online environment while not even a single respondent strongly dis-agrees to the same.



Analysis on the Basis of Gender (Of Agree Responses)

Gender	Agree responses	Percentage
Female	28	55%
Male	23	45%
Total	51	100%

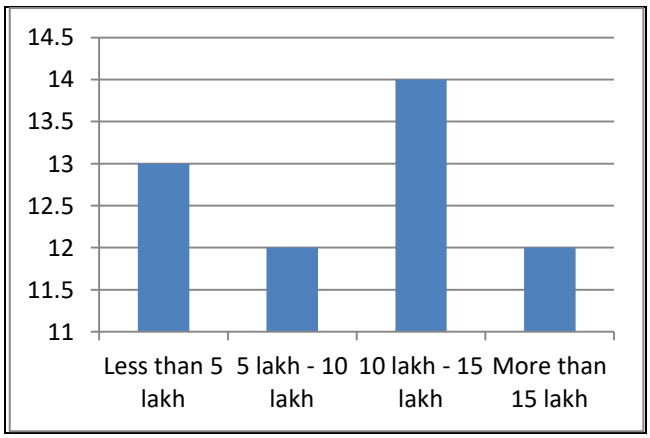
The agree rate varies with regard to gender when it comes to freedom, with females agree rate (55%) being more as compared to males (45%).



Analysis on the Basis of Educational Qualification (Of Agree Responses)

Educational Qualification	Number of agree responses	Percentage
M.Com	12	24%
MBA	11	22%
MA(Economics)	13	25%
M.Sc	8	16%
M.TECH	7	14%
Total	51	100%

MA (Economics) stream students have more percentage of agreed responses as compared to M.TECH and M.Sc stream while other streams have shown close responses to the fact that Freedom to learn is more in online environment.



Analysis on the Basis of Annual Family Income (Of Agree Responses)

Annual Family income	Agree responses	Percentage
Less than 5 lakh	13	25%
5 lakh - 10 lakh	12	24%
10 lakh - 15 lakh	14	27%
More than 15 lakh	12	24%
Total	51	100%

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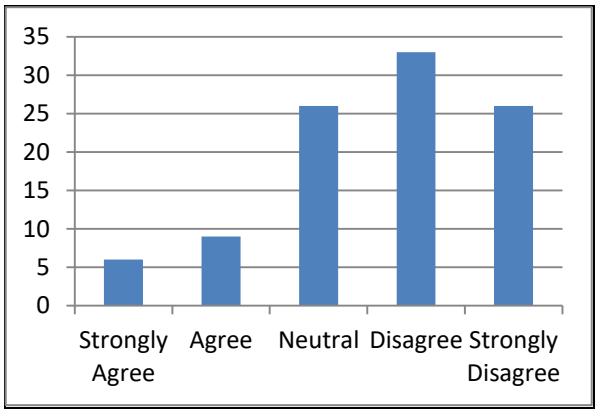
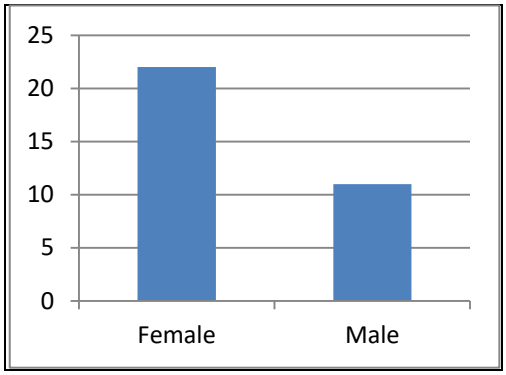
There is almost negligible variation when it comes to agreement to the statement that freedom to learn is more in online environment in context of the annual family income.



4.2.6 Doubt Clarity is More in Online Learning

Options	Total
Strongly Agree	6
Agree	9
Neutral	26
Disagree	33
Strongly Disagree	26
Total	100

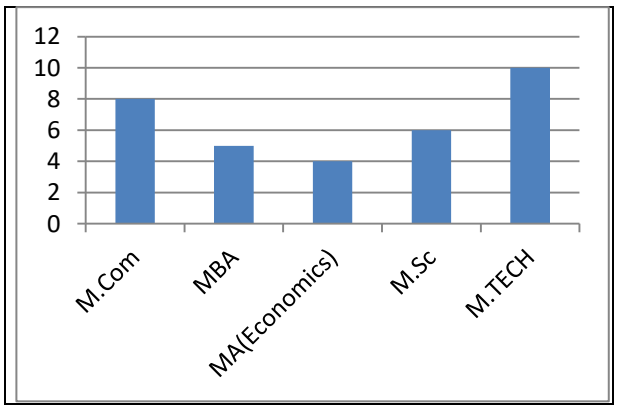
The proportion of students who dis-agree with the fact that Doubt Clarity is more in online learning is more than the proportion of students under the remaining four options while 26% is shared by both Neutral and Strongly Dis-agree responses.



Analysis on the Basis of Gender (Of Dis – Agree Responses)

Gender	Number of Dis-agree responses	Percentage
Female	22	67%
Male	11	33%
Total	33	100%

Females dis-agree rate to the statement that doubt clarity is more in online learning is much more than that of males i.e. the response towards doubt clarity varies with regard to gender



Analysis on the Basis of Educational Qualification (Of Dis – Agree Responses)

Educational Qualification	Number of Dis - agree responses	Percentage
M.Com	8	24%
MBA	5	15%
MA(Economics)	4	12%
M.Sc	6	18%
M.TECH	10	30%
Total	33	100%

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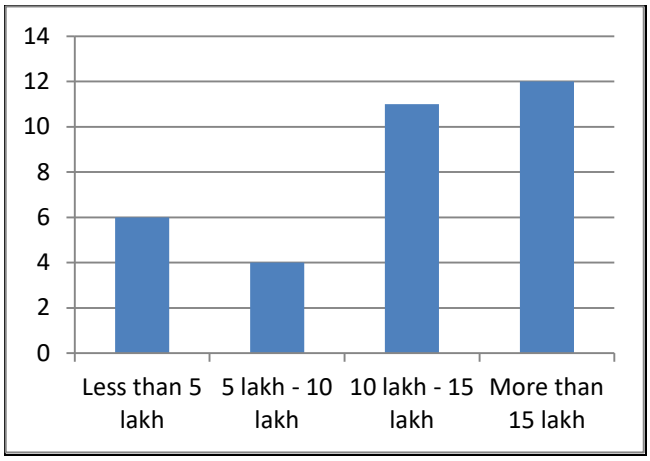
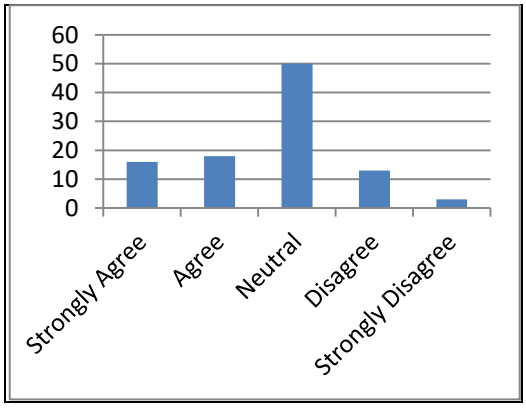
Most of the Dis – agree responses are from M.TECH stream i.e. students from this stream are more likely to believe that the doubt clarity is not there in case of online learning as compared to the respondents from the other streams.



Analysis on the Basis of Annual Family Income (Of Dis-Agree Responses)

Annual Family income	Number of Dis-agree responses	Percentage
Less than 5 lakh	6	18%
5 lakh - 10 lakh	4	12%
10 lakh - 15 lakh	11	33%
More than 15 lakh	12	36%
Total	33	100%

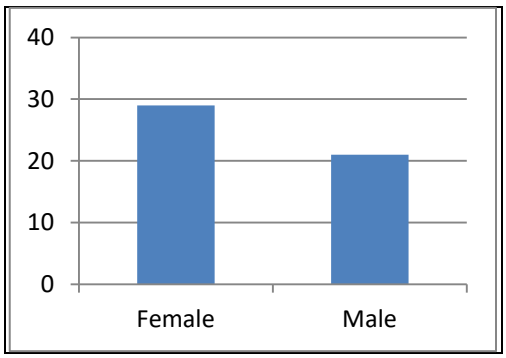
The least dis-agree rate to the statement that doubt clarity is more in online learning comes from the students having annual family income of 5 lakh – 10 lakh



4.2.7 Learning Experience is Better with Online Environment

Options	Total
Strongly Agree	16
Agree	18
Neutral	50
Disagree	13
Strongly Disagree	3
Total	100

50% of the respondents are neutral to the fact that Learning experience is better with online environment which shows that they consider their learning experience with online platform the same as their learning experience with the offline platform. I.e. as per half of the respondents of the study, **there is no difference between the two platforms in terms of their learning experiences.**



Analysis on the Basis of Gender (Of Neutral Responses)

Gender	Number of Neutral responses	Percentage
Female	29	58%
Male	21	42%
Total	50	100%

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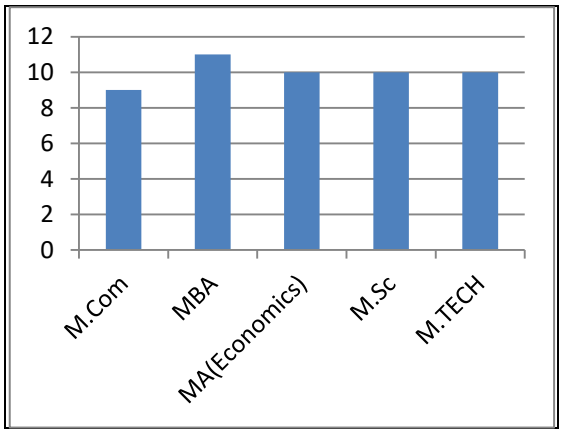
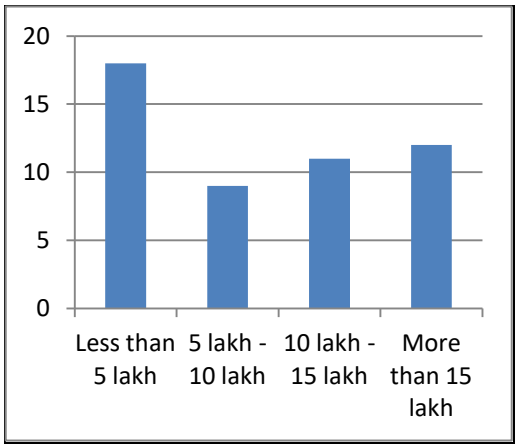
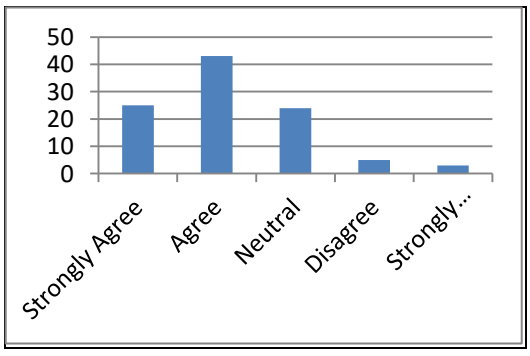
Females are more likely to believe that the learning experience is the same in both online and offline platforms as compared to males.



The proportion of all the streams is close to each other i.e. all the streams are neutral to the fact that Learning experience is better with online environment**.**



The neutral rate towards the statement that learning experience is better in online environment is the least among the students from annual family income group of 5 lakh – 10 lakh.



Analysis on the Basis of Educational Qualification (Of Neutral Responses)

Educational Qualification	Neutral Responses	Percentage
M.Com	9	18%
MBA	11	22%
MA(Economics)	10	20%
M.Sc	10	20%
M.TECH	10	20%
Total	50	100%

Accordingly there is no difference across the educational qualification in terms of the learning experience factor.

Analysis on the Basis of Annual Family Income (Of Neutral Responses)

Annual Family income	Number of Neutral responses	Percentage
Less than 5 lakh	18	36%
5 lakh - 10 lakh	9	18%
10 lakh - 15 lakh	11	22%
More than 15 lakh	12	24%
Total	50	100%

4.2.8 Better Quality Content is Available Online

Options	Total
Strongly Agree	25
Agree	43
Neutral	24
Disagree	5
Strongly Disagree	3
Total	100

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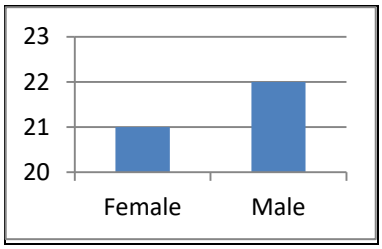
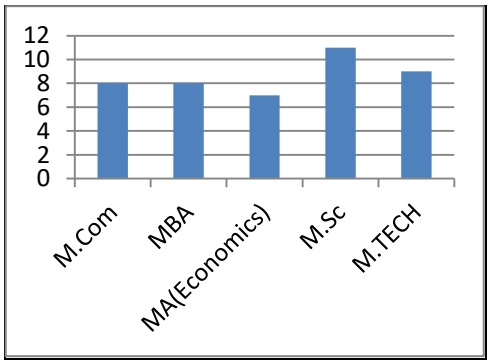
43% responses agree to the statement that Better quality content is available online, 25% strongly agrees while only 3% of the respondents strongly dis-agree to this fact.



Analysis on the Basis of Gender (Of Agree Responses)

Gender	Agree responses	Percentage
Female	21	49%
Male	22	51%
Total	43	100%

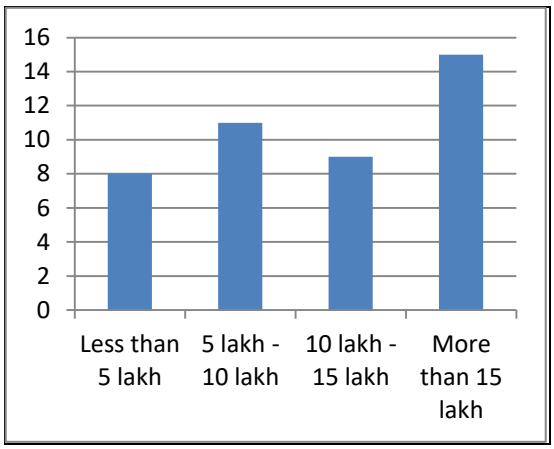
The agree response towards the statement that better quality content is available online does not vary much with regard to gender.



Analysis on the Basis of Educational Qualification (Of Agree Responses)

Educational Qualification	Agree Responses	Percentage
M.Com	8	19%
MBA	8	19%
MA(Economics)	7	16%
M.Sc	11	26%
M.TECH	9	21%
Total	43	100%

Maximum agree responses are from M.Sc stream i.e. 26% responses which shows that as compared to the respondents from other educational qualifications, the number of agree responses of M.SC students are higher.



Analysis on the Basis of Annual Family Income (Of Agree Responses)

Annual Family income	Agree responses	Percentage
Less than 5 lakh	8	19%
5 lakh - 10 lakh	11	26%
10 lakh - 15 lakh	9	21%
More than 15 lakh	15	35%
Total	43	100%

The highest agree rate to the statement that better quality content is available online is from respondents with annual family income of more than 15 lakh.

4.2.9 Online Platforms are More Adaptable and Easier to Work With

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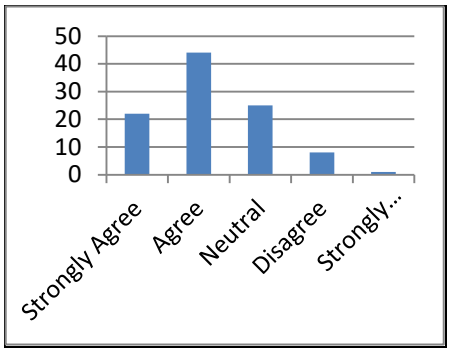
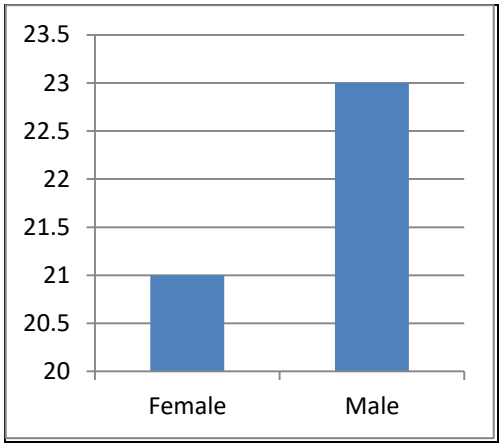


Options	Total
Strongly Agree	22
Agree	44
Neutral	25
Disagree	8
Strongly Disagree	1
Total	100

Most of the respondents agree to the statement that **online platforms are more adaptable and easier to work with** while only 1 strongly dis-agrees to the same

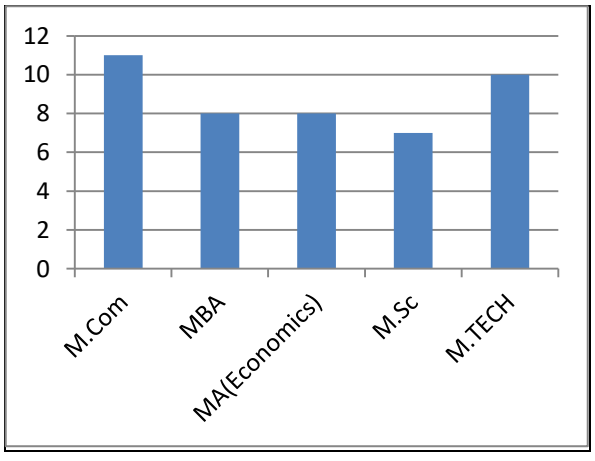
Analysis on the Basis of Gender (Of Agree Responses)



Gender	Agree responses	Percentage
Female	21	48%
Male	23	52%
Total	44	100%

The agree rate to the statement that online platforms are more adaptable and easier to work with is more among males as compared to females.

Analysis on the Basis of Educational Qualification (Of Agree Responses)



Educational Qualification	Agree Responses	Percentage
M.Com	11	25%
MBA	8	18%
MA(Economics)	8	18%
M.Sc	7	16%
M.TECH	10	23%
Total	44	100%

Both M.TECH and M.Com students have comparatively highly agree responses over the other streams. MBA and MA Economics agree to the same level on the statement that online platforms are more adaptable

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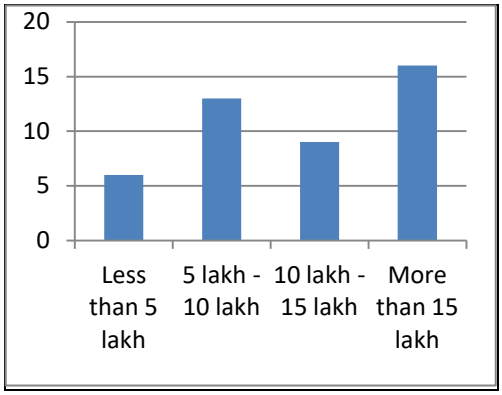
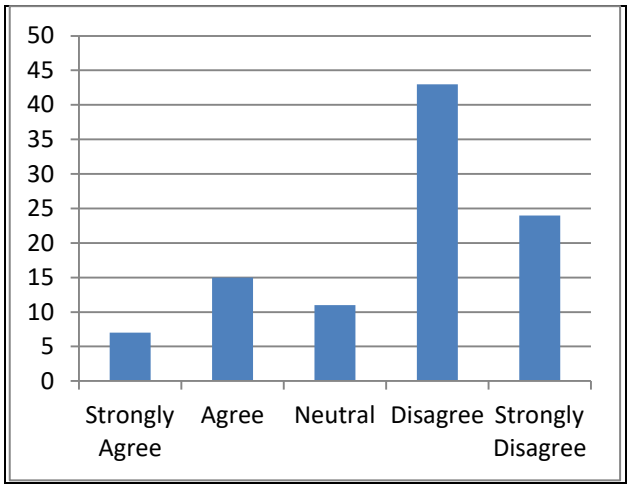
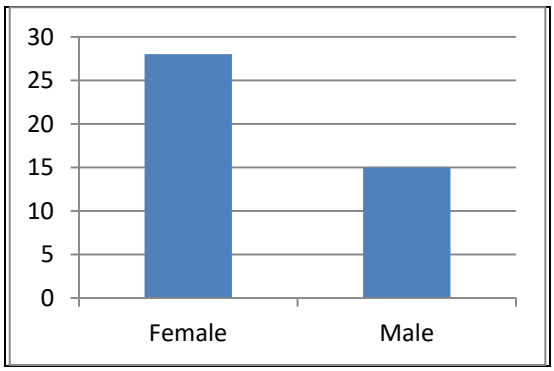
and easier to work with while its percentage for MSC stream is 16 %.



Respondents from annual family income of more than 15 lakh have more agree rate to the statement that online platforms are more adaptable and easier to work with.



Majority of the respondents dis-agree with this statement i.e. they comparatively find that **offline platform results in better evaluation of the performance over the online platform**



Analysis on the Basis of Annual Family Income (Of Agree Responses)

Annual Family income	**Agree responses**	**Percentage**
Less than 5 lakh	6	14%
5 lakh - 10 lakh	13	30%
10 lakh - 15 lakh	9	20%
More than 15 lakh	16	36%
Total	44	100%

4.2.10 Performance is Better Evaluated in Online Learning Over Offline Learning

Options	**Total**
Strongly Agree	7
Agree	15
Neutral	11
Disagree	43
Strongly Disagree	24
Total	100

Analysis on the Basis of Gender (Of Dis Agree Responses)

Gender	**Number of Dis-agree responses**	**Percentage**
Female	28	65%
Male	15	35%
Total	43	100%

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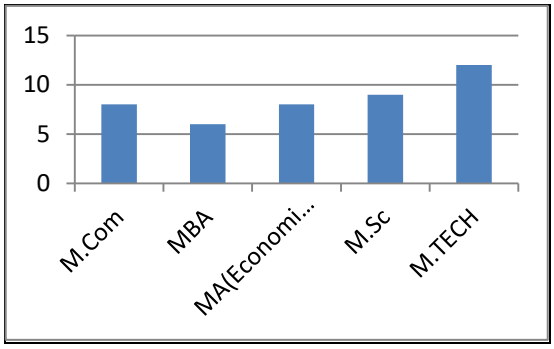
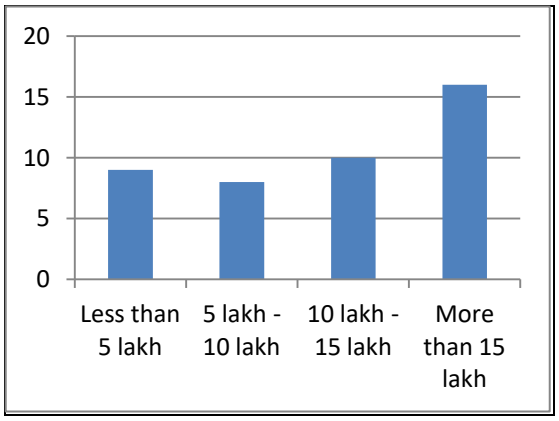
Females disagree response to the statement that performance is better evaluated in online learning over offline learning is way more than males i.e. response towards performance evaluation highly varies with regard to gender.



Analysis on the Basis of Educational Qualification (Of Dis Agree Responses)

Educational Qualification	Dis - Agree Responses	Percentage
M.Com	8	19%
MBA	6	14%
MA(Economics)	8	19%
M.Sc	9	21%
M.TECH	12	28%
Total	43	100%

M.TECH respondents have the highest dis-agree responses which shows that as compared to respondents from other educational qualifications, M.TECH students relatively have high dis-agree rate to the statement that Performance is better evaluated in online learning over offline learning.



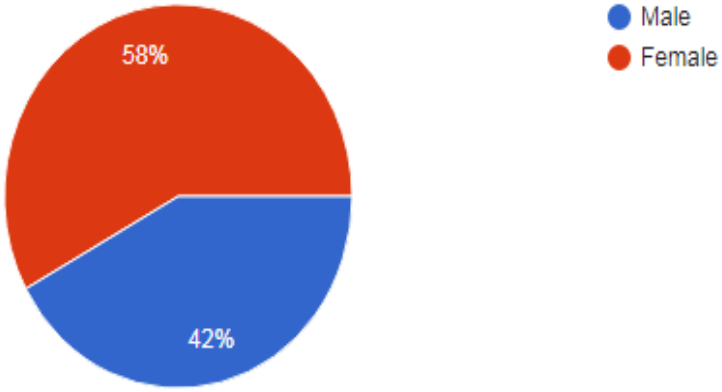
Analysis on the Basis of Annual Family Income (Of Dis Agree Responses)

Annual Family income	Number of disagree responses	Percentage
Less than 5 lakh	9	21%
5 lakh - 10 lakh	8	19%
10 lakh - 15 lakh	10	23%
More than 15 lakh	16	37%
Total	43	100%

The maximum disagree responses to the statement that performance is better evaluated in online learning over offline learning is from the students with annual family income of more than 15 lakh.

4.3 Demographic Variables

4.3.1 Gender



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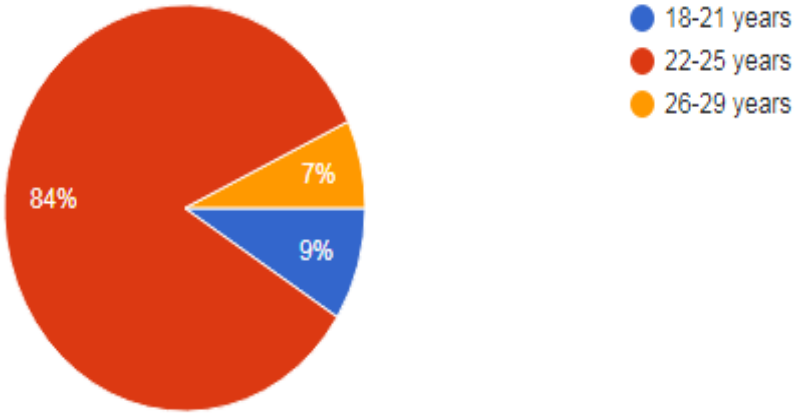
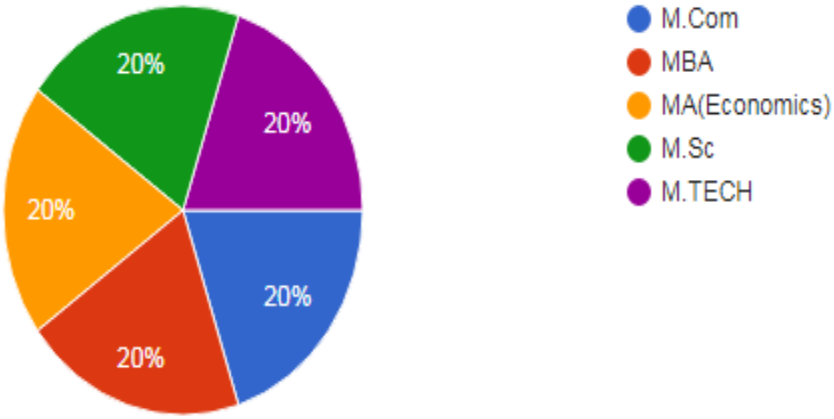
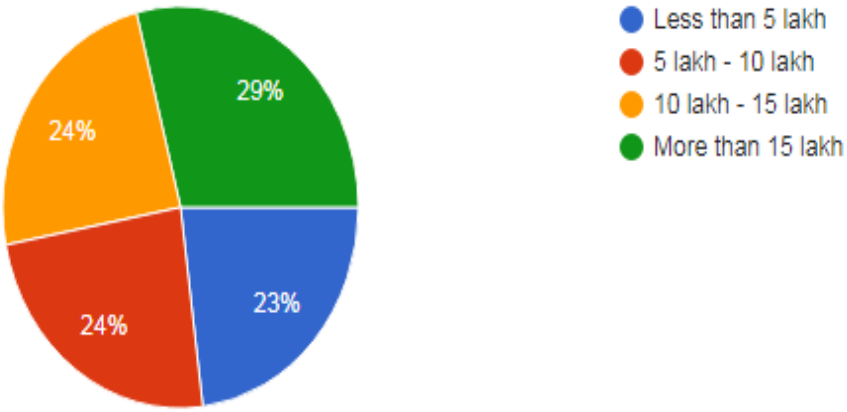
4.3.2 Age



4.3.3 Educational Qualification



4.3.4 Annual Family Income



Demographic Variables Tabular Presentation

Sr. No	DEMOGRAPHIC VARIABLES	CATEGORIES	FREQUENCIES
1	Gender	Male	42
		Female	58
		Total	100
2	Age	18-21 years	9
		22-25 years	84
		26-29 years	7
		Total	100
3	Educational Qualification	M.Com	20
		MBA	20
		MA(Economics)	20
		M.Sc	20
		M.TECH	20
		Total	100
4	Annual Family Income	Less than 5 Lakh	23
		5 lakh-10 lakh	24
		10 lakh-15 lakh	24
		More than 15 lakh	29
		Total	100

V. FINDINGS, SUGGESTIONS AND CONCLUSION

5.1 Findings of the Study

- All of the post – graduate students in the research study have **access to both computer and internet** whether always or sometimes but none of the respondent replied in negative.
- The comparison of accessibility of computer and internet with regard to gender in the study shows **that overall males have comparatively better access to this facility over females** because of more 'sometimes' responses received from females over males.
- The **accessibility to computer and internet facility does not vary to a large extent on the basis of respondent's educational qualification.**
- The **computer and internet facility availability varies to some extent on the basis of their annual family income particularly for the respondents whose annual family income falls below 5 lakh** as their percentage of 'yes' responses to this facility is comparatively lower than respondents from other income groups.

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- It can be stated that **online learning is better over offline learning in terms of its convenience** as around 50% of the respondents have agreed to the same while the remaining 50% showed mixed responses.
- **No difference of opinion has been found with regard to gender** when it comes to the rate of agreement to the statement that online learning is more convenient than offline learning.
- A difference of response towards the convenience factor has been noted in the study with regard to educational qualification. Overall **M.Sc stream students clearly find online learning more convenient over offline as compared to MBA students.**
- The response rate towards convenience factor **varies with regard to income levels**, with least agree rate found among students having family income of less than 5 lakh annually
- Majority(49%) of the respondents agree to the fact that **online learning offers better flexibility over offline learning** and only 1 respondent strongly dis-agreed to the fact.
- Flexibility factor has witnessed a **difference of opinion with regard to gender** as the agree rate is found more among females than males.
- **A difference of opinion towards the flexibility factor has been witnessed with regard to educational qualification.** Overall MA (Economics) shows more 'agree' responses to the statement over the other stream students.
- The response rate towards flexibility factor **varies with regard to lower income group** (less than 5 lakh) as compared to respondents from other income groups.
- **Offline learning is preferred by students over online learning in case of teacher-student interaction** as 42% of the respondents find this factor missing in online learning environment.
- **Females have responded in more numbers** over males when expressing their perception that teacher-student interaction is missing in online environment.
- **No difference has been noted amongst the students from different educational qualifications with regard to their perception towards the teacher-student interaction** i.e. students irrespective of their educational qualification, finds this fact missing in online education
- A **difference of opinion towards teacher-student interaction has been found with regard to their annual family income** with maximum rate of disagreement (31%) found in students having family income of more than 15 lakh and minimum rate of dis-agreement (19%) found in students having family income of less than 5 lakh.
- **Online platforms are perceived to be more accessible in terms of time and cost over offline** one by 48% respondents while not even a single respondent strongly dis-agreed with the statement.
- The agree rate towards the statement that online platforms are more accessible in terms of time and cost over offline is **more among females compared to males.**
- Major part of the agreed responses for accessibility factor comes from MA(Economics) while the smallest part comes from the M.Sc stream i.e. **MA(economics) students are more likely to agree to the fact that online learning is more accessible over other stream students.**
- Respondents having annual family income of less than 5 lakh find online platforms less accessible as compared to the agree rate among students from the other income groups i.e. **the response towards accessibility factor varies with regard to the annual family income**.
- More than half of the respondents agree to the fact that the **freedom to learn is more in online environment as compared to the offline one.**
- In case of the agreement to the statement that freedom to learn is more in online environment, **the agree rate varies with regard to gender** with females agree rate (55%) being more as compared to males (45%).
- Considering the 'freedom to learn' factor**, MA (Economics) stream students have more percentage of agreed responses as compared to M.Tech and M.Sc stream** while Mba and M.Com have shown close responses.
- There is **almost negligible variation** when it comes to agreement to the statement that freedom to learn is more in online environment **in context of the annual family income.**
- **Offline learning is considered better over online learning in terms of 'doubt clarity'** by most of the respondents.
- **The response towards doubt clarity varies with regard to gender** with female rate of response that doubt clarity is missing in online environment being much more as compared to the response of males.
- The percentage of students who believe that doubt clarity is missing in online learning is **highest**

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amongst the M.TECH students as compared to others.

- The least dis-agree rate to the statement that doubt clarity is more in online learning comes from the students having annual family income of 5 lakh – 10 lakh ie **the response towards doubt clarity factor varies with regard to annual family income.**
- **There is no difference between the online and offline learning environment as far as the 'learning experience' is concerned**, 50% of the respondents have shown neutral response to the learning environment.
- **Females are more likely to believe** that the learning experience is the same in both online and offline platforms as compared to males
- There is **no difference across the educational qualification in terms of learning experience** factor.
- **There is a difference across annual family income in terms of the learning experience variable** as the neutral rate towards the statement that learning experience is better in online environment is the least among the students from annual family income group of 5 lakh – 10 lakh.
- Students' perception shows that **online learning is better than offline in terms of the availability of content.** As per 43% of the responses, the quality of content available online is better over the content quality available in regular learning.
- The agree response towards the statement that better quality content is available online **does not vary much with regard to gender**
- The percentage of **students who agree to the fact that better quality content is available online is highest from M.Sc stream over others**.
- The **highest agree rate** to the statement that better quality content is available online **is from respondents with annual family income of more than 15 lakh.**
- Most of the respondents agree to the fact that **online platforms are more adaptable and easier to work** with as compared to the offline one.

  The response towards adaptability factor varies with regard to gender as the agree rate to the statement that online platforms are more adaptable and easier to work with is more among males as compared to females.
- There is **little or almost no difference among students for their perception towards 'adaptability' factor with regard to their educational qualification** other than the M.Sc stream students
- Respondents from annual family income of more than 15 lakh have more agree rate to the statement that online platforms are more adaptable and easier to work with ie **the response towards adaptability factor varies with regard to annual family income.**
- Study shows that **offline platform results in better evaluation of the students' performance** over the online platforms.
- **Response towards performance evaluation highly varies with regard to gender** with females favoring offline environment in more numbers over males in term of performance evaluation variable.
- The **percentage of students who agree to the fact that performance evaluation is better in offline learning is highest from M.TECH respondents** over students from other educational qualifications.
- **Students with annual family income of more than 15 lakh favor offline environment in more numbers** for better performance evaluation as compared the students from other income groups.
- The respondents who think that online is an effective way of learning gave reasons like its **convenience, flexibility, accessibility, freedom in learning, content availability and adaptability in terms of time and cost**.
- The respondents who think that offline is an effective way of learning gave reasons like **teacher-student interaction, doubt clarity and performance evaluation.**

5.2 Suggestions

- Online learning helps students to learn in addition to what they learn from the offline source.
- The teacher-student interaction plays an important in determining the platform and accordingly it needs improvement in the learning environment.
- The topic offers a great scope for further studies where such comparative analysis can be made on a larger scale and covering actual performance evaluation and comparison over both the platforms.

5.3 Conclusion

- This report is prepared to check whether people have access to computer and internet or not and what they think about online education and what they prefer as a mode of education – online education or offline/traditional education. The observation is that it depends upon the factors

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guiding the learning platforms which affect the students' perception towards them.

- The students have their own reasons for preferring a particular platform. Their reasons to prefer online platform over offline includes its convenience, flexibility, accessibility, freedom in learning, content availability and adaptability in terms of time and cost. The reasons to prefer offline platform includes teacher-student interaction, doubt clarity and performance evaluation.
- The factor 'learning experience' has received neutral responses which shows that there is no difference between online and offline learning in the context of their learning experience as per the respondents.
- Considering the gender, perception towards factors like flexibility, teacher-student interaction, accessibility, freedom in learning, doubt clarity, learning experience, adaptability and performance evaluation varies among male and female respondents.
- There are factors like convenience and content availability where the perception of students does not vary with regard to their gender.
- As per the study, perception towards factors like convenience, flexibility, accessibility, freedom in learning, doubt clarity, content availability and Performance evaluation varies across students from various educational qualifications.(M.Com, MBA,MA(Economics), M.Sc and M.TECH)
- There are factors like teacher student interaction, learning experience and adaptability where the perception of students does not vary with regard to their educational qualifications.
- Perception towards factors like convenience, flexibility, teacher student interaction, accessibility, doubt clarity, learning experience, content availability, adaptability and performance evaluation varies with regard to the respondents annual family income.
- The respondent's perception towards the variable freedom in learning remains unaffected in the context of annual family income.
- To conclude the full report, it can be said that the online learning and offline learning have their own advantages and disadvantages and the perception of students towards these platforms varies in accordance with the requirements of the students.

Overall Variable Wise Preference Of Respondent's Towards Online And Offline Learning Platforms

Sr. No.	Variables	Preference	
		Online Learning	Offline Learning
1	Convenience		
2	Flexibility		
3	Teacher-Student interaction		
4	Accessibility		
5	Freedom to learn		
6	Doubt Clarity		
7	Learning Experience		
8	Better Quality Content		
9	Adaptability		
10	Performance evaluation		

Variability Of Perception With Regard To Gender, Educational Qualification And Annual Family Income

Sr. No.	Variables	Gender	Educational Qualification	Annual family Income
1	Convenience	No	Yes	Yes
2	Flexibility	Yes	Yes	Yes
3	Teacher-Student interaction	Yes	No	Yes
4	Accessibility	Yes	Yes	Yes
5	Freedom to learn	Yes	Yes	No
6	Doubt clarity	Yes	Yes	Yes
7	Learning experience	Yes	No	Yes
8	Better quality content	No	Yes	Yes
9	Adaptability	Yes	No	Yes
10	Performance Evaluation	Yes	Yes	Yes

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ANNEXURE
QUESTIONNAIRE

SECTION 1

1) Name

2) Gender

3) Male

4) Female

5) Age

6) 18-21 years

7) 22-25 years

8) 26-29 years

9) Educational Qualification

10) M.Com

11) MBA

12) MA(Economics)

13) M.Sc

14) M.TECH

15) Annual Family Income

16) Less than 5 lakh

17) 5 lakh – 10 lakh

18) 10 lakh – 15 lakh

19) More than 15 lakh

SECTION 2

1) DO YOU HAVE ACCESS TO COMPUTER AND INTERNET?

a) Yes

b) No

c) Sometimes

2) Please Mark The Following As Per Your Preferences

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Variables	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Online learning is more convenient than offline learning					
Online learning offers better flexibility over offline learning					
Teacher-Student interaction is more in online environment over offline one					
Online Platforms are more accessible in terms of time and cost over offline					
Freedom to learn is more in online environment					
Doubt Clarity is more in online learning					
Learning experience is better with online environment					
Better quality content is available online					
Online platforms are more adaptable and easier to work with					
Performance is better evaluated in online learning over offline learning					