TEXT VS. IMAGE VS. VIDEO: ARTIFICIALINTELLIGENCE IS TRANSFORMING INFLUENCER MARKETING INDUSTRY

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Abstract. The main aim of the research paper was to find out the various reasons that led to increase in engagement from text, images & videos on Instagram and to know which factors provide higher engagement. The Research study was conducted in two ways: Survey Method – By filling questionnaire respondents will clear out the image of the scenario. Keeping under all the age group followers from age 18 to above 50 will help to obtain good result and Followers of Moodie_Foodie_Fairy_ across the world. Research Design used was Exploratory and Descriptive. Sample Size was 400 respondents. By personal Instagram account (Moodie_Foodie_Fairy_) by tool HypeAuditor. By studying various research papers, article and opting primary data i.e., with the help of questionnaire got to know what the followers find out more interesting short videos, post or text on Instagram by applying EFA. The study has been based purely on Instagram.

Keywords: Followers, Video-Post, Instagram, Food Blogger, influencer, ArtificialIntelligence,EFA.

1 INTRODUCTION

Instagram - One of the most well-known social media sites allows users to instantly record and share their life's milestones with friends and family through a collection of images, videos, and text. Countries with the most Instagram users 2022(in millions). India had the greatest Instagram viewership in the world with 230.25 million users overall. Brazil had 119.45 million users, while the United States had 159.75 million. Turkey, Indonesia, and Russia were placed fourth, fifth, and sixth, respectively. What Instagram category gets the most views Media, Fashion, Music, Arts, Fitness and wellness, Photography, Food, Travel, Cinema and Makeup.

Which content is more effective -

Videos vs. Photos: Which is Better: Because video material is worth researching for engaging with your audience, videos are better at generating engagement than photographs.

Text vs. Images: Reach a Higher Percentage of Your Fans: Rich photos and vivid graphics have the power to draw in more viewers. Text can get dull.

Text-only posts: Is boring but can be highly effective on Instagram as long as they're Short and sweet.

Food Blogging on Instagram

A food blog is a blog that covers anything from restaurant reviews to journal-style entries about a person's life decisions to recipes that the author wants to try or experiment with.

Advantages of becoming Food Blogger:
• Every day is a fresh start, and travelling is an opportunity.
• You are your own boss.

Instagram is good for online business: Make a business account on Instagram, and then promote your company using images, live videos, and hash tags. Use Instagram advertisements to promote your brand while using the platform's shopping feature to sell your goods.

2 LITERATURE REVIEW

Not just food: Exploring the influence of food blog engagement on intention to taste and to visit. The current study examines how readers' involvement is impacted by perceived enjoyment, blogger credibility, and homophily. The study also looks into the influence that participation in blogs has on intentions to heed bloggers' advice. Although these issues are becoming more important, previous research has overlooked the value of analysing these variables collectively in the context of food blogs. Image or Text: Which One is More Influential? A Deep-learning Approach for Visual and Textual Data Analysis in the Digital Economy. In this study, we investigate the impact of unstructured data on

and the significance of textual and visual data congruence in customers' purchasing decisions. This study shows how to use cutting-edge deep learning techniques to gauge the congruence between several forms of information.

Accurate video text detection through classification of low and high contrast images. In order to accurately recognise the boundary of text lines in video images, new concepts for classifying low contrast and high contrast video images are examined in this study.

Identity and ideology in digital food discourse: social media interactions across cultural. With regard to detection rate, false alarm rate, misdetection rate, and inaccurate boundary rate, the suggested method performs better than the state-of-the-art methods in this investigation.

Content Analysis of Food Instagram Account. By examining 40 food Instagram accounts, this study aims to understand the approach of these accounts.

Being an influencer. In this study, nurses are given a platform to discuss their professional experiences, to express their feelings, to support one another, and to value the opinions of friends, coworkers, and other social media users.

Content analysis of food Instagram account. By examining 40 food Instagram accounts, this study aims to understand how these accounts operate. Popular posting times and user engagement have identified the optimal times to post on Instagram. Instagram content has a new phenomenon that may increase engagement.

Food Blogging and Food- related Media Convergence. This study demonstrates how blogs mostly featuring recipes are considered to be food blogs.

Syahbani, M. F., & Widodo, A. (2017); Food blogger Instagram: Promotion through social media. According to this study, an explanation can be given and the message can be delivered effectively and efficiently for exhibiting a range of situations with good multimedia capabilities through the use of Instagram as a media campaign.

Effects of textual and visual information in social media on international students' choice of study destination. The objective is to further knowledge of how foreign students use social media and how various types of information on social media influence their decision to study abroad.

3. RESEARCH METHODOLOGY

Hypothesis: Text vs. Image vs. Video has a significant on impact influencer for a food blogger on Instagram

Research objectives:
 Objective 1: To understand "text vs image vs video" what influences the most.
 Objective 2: To adapt the most relevant content for an Instagram post of a Food blogger.

Research Design: In this paper descriptive and exploratory research designs are used. Descriptive Research is typically concerned with determining the frequency with which something occurs or how two variables vary together. Exploratory research: is a methodology approach that investigates research questions that have not previously been studied in depth.

Method of data collection:
The primary data has been collected from the questionnaire that was filled out by 400 respondents and analysis on the same has been done. The method used is survey which was done through Google Forms which was circulated on 7 June, 2022 to 29 June, 2022. The secondary data has been collected through various sources and they are newspapers, journals, books & internet.

Sample Design
Sample Unit-The data has been collected from Followers of Moodie_Foodie_Fairy_. Sample Size- 400
Method – Purposive sampling, also known as judgmental, selective, or subjective sampling, is a form

of non- probability sampling in which researchers rely on their own judgment when choosing members of the population to participate in their survey. Personal Instagram Account - (Moodie_Foodie_Fairy_) and tool used is *HypeAuditor*.
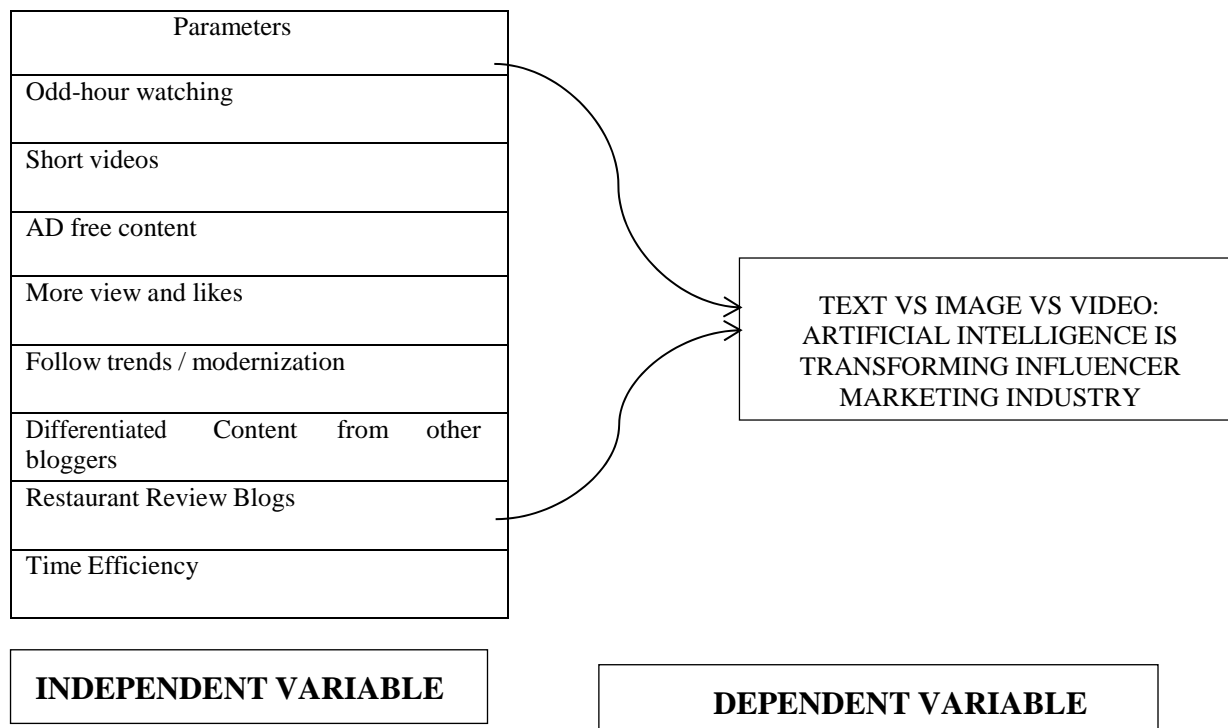
3.1   Research Model

Parameters
Odd-hour watching
Short videos
AD free content
More view and likes
Follow trends / modernization
Differentiated Content from other bloggers
Restaurant Review Blogs
Time Efficiency

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INDEPENDENT VARIABLE

DEPENDENT VARIABLE

Fig.1. Theoretical Research Model

4. Analysis & Interpretation – Survey

AGE
400 responses
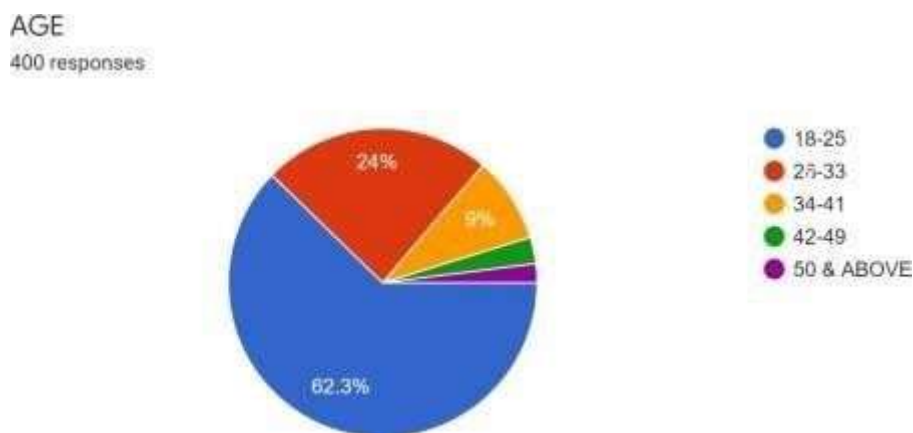

- 18-25
- 25-33
- 34-41
- 42-49
- 50 & ABOVE

Fig 2. Interpretation of Age: As it is evident in the above chart, that most of the respondents i.e., 62.3% are in the age group of 18-25 years.

Q2.

Gender
400 responses
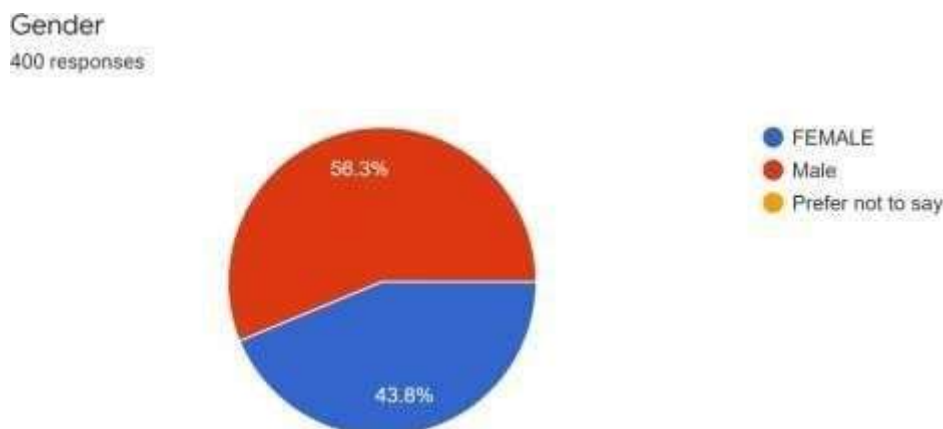

- FEMALE
- Male
- Prefer not to say

56.3%

43.8%

Fig.3. Interpretation of Gender: The above pie chart clearly states that 56.3% of the respondents areMale who is more oriented to watch Food Blogs and 43.8% are Female respondents.

Table 1. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.810
Bartlett's Test of Sphericity	Approx. Chi-Square Df	825. 330
	Sig.	.000

INTERPRETATION

A. Kaiser-Meyer-Olkin Measure of Sampling Adequacy- This measure variesbetween 0 and 1, and values closer to 1 are better.

Kaiser-Meyer-Olkin=0.810B. Bartlett's Test of Sphericity- This evaluates the identity-matrix null hypothesis for the correlation matrix. A matrix that has all diagonal members at 1 and all off-diagonal elements at 0 is said to be an identity matrix. This null hypothesis should be disproved.When combined, these tests offer a minimal bar that must be met before doing a factor analysis (or principal components analysis).

Table 2. Communalities

Communalities

	Initial	Extraction
Do you spend most of the time watching foodreels?	1.000	.513
Do you find that short videos on Instagram are more engaging?	1.000	.504
You intend to watch short videos more as compared toInstagram posts or text	1.000	.349

Do you like to watch Instagram as it is ad free and provide free content?	1.000	.549
Do you intend to watch short videos with more likes and views?	1.000	.467
Do you follow content maker with more trending videos on their page?	1.000	.534
You intend to visit places after you see a good food post and short videos on Instagram.	1.000	.489
The posts you see on Instagram regarding food content changes your food opinion for a particular place	1.000	.424
You intend to read the caption to know the venue after seeing a delicious food post	1.000	.460
You intend to save time by searching places to dine on Instagram food blogs	1.000	.469

- Extraction Method: Principal Component Analysis.

Communalities show the common variance that a factor and a set of variables share. A higher communality meant that the factor solution had extracted more variance from the variable. Communalities must be 0.4 or higher for a more accurate measurement of factor analysis. Here, we can observe that the only questions with marginally lower numbers are 3,5, 7, 8, 9, and 10.

TOTAL VARIABLE EXPLAINED TEST

Table 3. Total Variable
The total column displays the percentage of variance in the original variables that each component contributes to. Initial Eigenvalues and Extracted Sums of Squared Loadings are the two sub-sections of the Eigenvalue table. The first factor, which accounts for 24.231% of the variance, and the second, which accounts for 23.350%, should be noted in this case. The remainder of the factors are all insignificant

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.393	33.926	33.926	3.393	33.926	33.926	2.423	24.231	24.231
2	1.365	13.654	47.581	1.365	13.654	47.581	2.335	23.350	47.581
3	0.930	9.303	56.884						
4	0.816	8.158	65.042						
5	0.745	7.447	72.489						
6	0.690	6.897	79.386						
7	0.611	6.106	85.492						
8	0.529	5.292	90.783						
9	0.482	4.817	95.601						
10	0.440	4.399	100.000						

Extraction Method: Principal Component Analysis.

Table 4. Component Matrix [a]

	1	2
Do you follow content maker with more trending videos on their page?	.650	

You intend to save time by searching places to dine on Instagram food blogs	.646	
The posts you see on Instagram regarding food content changes your food opinionfor a particular place	.618	
Do you spend most of the time watchingfood reels?	.596	
You intend to visit places after you seea good food post and short videos on Instagram.	.592	
You intend to read the caption to know the venue after seeing a delicious foodpost	.571	
Do you intend to watch short videos with more likes and views?	.561	
Do you like to watch Instagram as it is ad free and provide free content?	.542	.505
You intend to watch short videos more as compared to Instagram posts or text	.537	
Do you find that short videos on Instagram are more engaging?		.511

The loadings (extracted values of each item under 2 variables) of the 10 variables on the two extracted factors are displayed in the table below. The factor contributes to the variable more when the absolute value of the loading is bigger. The 10 items were split into two variables based on the two most significant items, which had similar responses in component 1 and component 2 at the same time. It is simpler to read the table because the gap (empty spaces) onit represents loadings that are smaller than 0.5.

Table 5. Rotated Component

Rotated Component Matrix³	Component	
	1	2
Do you spend most of the time watching food reels?	9.705	
You intend to visit places after you see a good food post and short videos on Instagram.	9.685	
Do you intend to watch short videos with more likes and views?	9.675	
You intend to read the caption to know the venue after seeing a delicious food post	9.666	
You intend to watch short videos more as compared to Instagram posts or text	9.559	
Do you like to watch Instagram as it is ad free and provide free content?		9.749
Do you find that short videos on Instagram are more engaging?		9.718
Do you follow content maker with more trending videos on their page?		9.690
You intend to save time by searching places to dine on Instagram food blogs		9.611
The posts you see on Instagram regarding food content changes your food opinion for a particular place		9.577

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 3 iterations.

Rotation is intended to cut down on the amount of variables that heavily load the variables under investigation. The rotational factor loadings in this table show the association between the factors and the variables as well as how the variables are weighted for each factor. These correlations have a range of possible values from -1 to +1.

Analysis & Interpretation – Instagram Page (with the help of HypeAuditor tool)
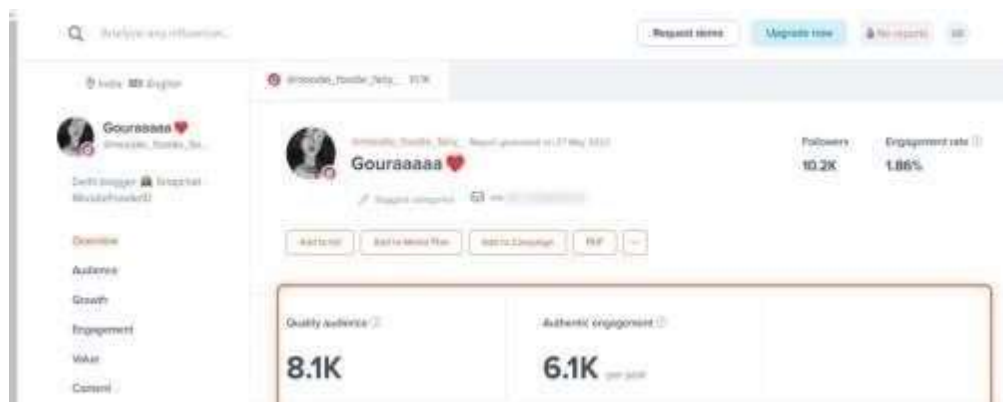
• Overview

Fig. 5. Interpretation of total number of followers on Instagram page

INTERPRETATION

As per the above data total number of followers is 10.1k of the page (@moodie_foodie_fairy_) in which quality audience is 8.1 k and authentic engagement being 6.1 k per post.

INTERPRETATION

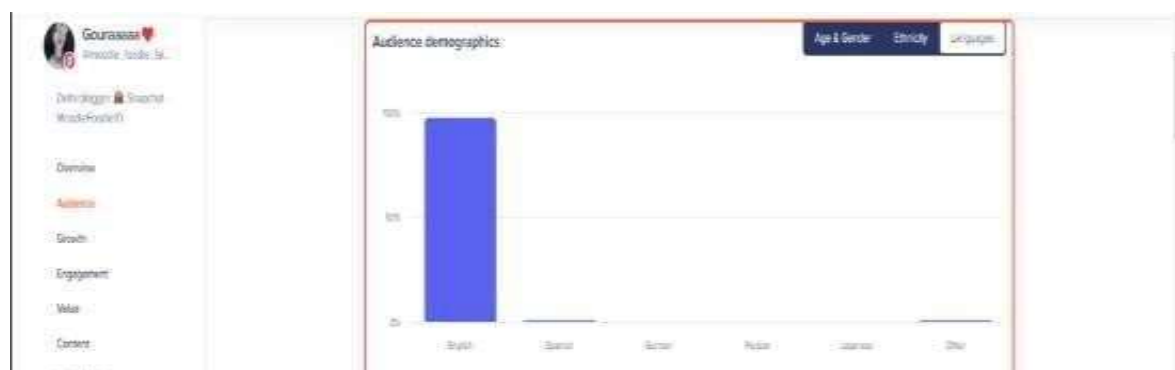As per the above data worldwide rank of the page (@moodie¬_foodie_fairy_) is 2,185,996 and the Indian rank of the page is 110,458.

Fig. 7. Interpretation of audience demographic as per preference of language

INTERPRETATION

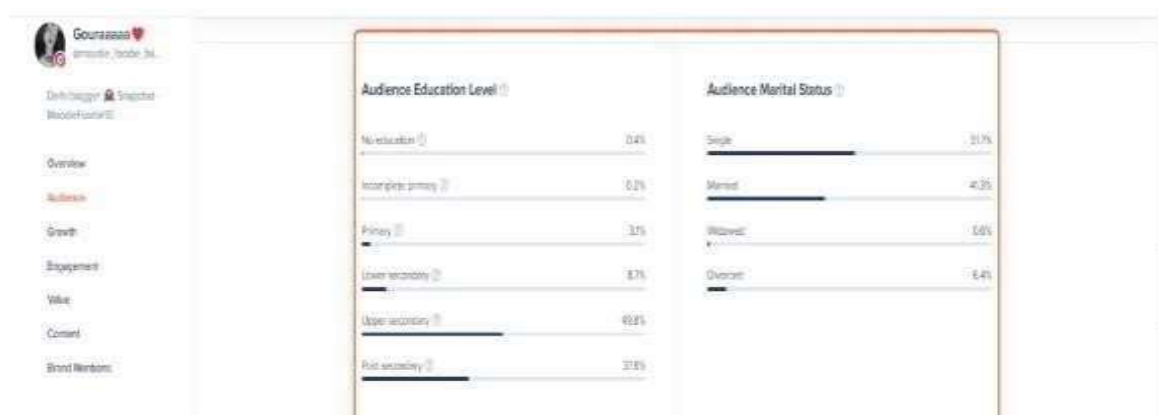Majority of the respondents prefer English language i.e., 90%.

Fig. 8. Interpretation of Audience education level

INTERPRETATION
As per the above data most of the audience is from the upper secondary education level i.e., 49.8% and majority of the follower's marital status is single i.e., 51.7%.Growth
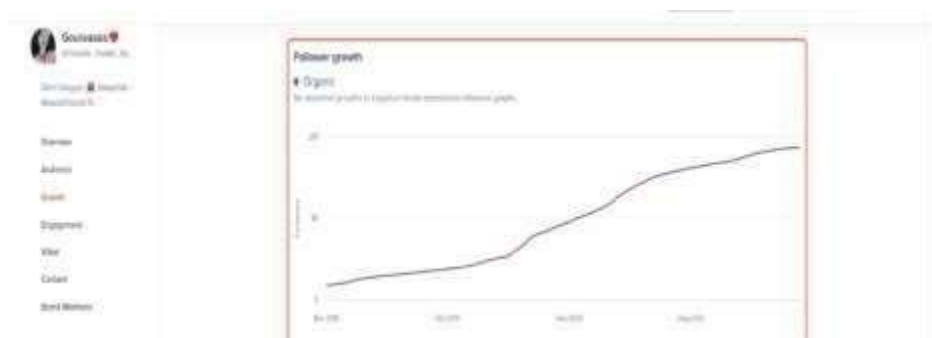

Fig. 9. Interpretation of follower's growth in number

INTERPRETATION

As per the above chart growth of the page is organic since November, 2018 there is no abnormal or negative growth detected. As per the above chart it can be observed that the engagement rate is 1.86% which is average.

5.FINDINGS (SURVEY)

- Most of the respondents fall under the age group of 18-25 years.
- Most of the respondents are Students, i.e., 57.3%.
- 56.3% of the respondents are Male, and 43.8% are Female respondents. who are more oriented to watch Food blogs.

- In this project KMO & BARTLETT'S TEST through factor analysis is used and outcome of this test is 0.81 which is more than the average, hence it proves that the questionnaire is relevant to the topic.
- From communalities extraction, 0.549 of respondents prefer watching Instagram as it is ad free and provide free content.
- It was analyzed that 0.534 of respondents follow content maker with more trending video on their page
- It was analyzed that 0.513 of respondents spend most of the time watching food reels.
- Through factor analysis it was analyzed that 0.504 of respondents find short videos.
- 0.489 of respondents intend to visit places after seeing a good food post and short videos on Instagram.
- It was analyzed that 0.469 of respondents intend to save time by searching places to dine on Instagram food blogs.
- It was analyzed that 0.467 of respondents u intend to watch short videos with more likes and views.
- Through factor analysis it was analyzed that 0.460 of respondents intend to read the caption to know the venue after seeing a delicious food post.
- Through factor analysis it was analyzed that 0.424 of respondents see post on Instagram regarding food content changes your food opinion for a particular place
- From communalities extraction, 0.349 of respondents don't prefer short videos in comparison to Instagram posts and texts

FINDINGS (INSTAGRAM PAGE)
- It was analyzed that total number of followers are 10.1k of the page(@moodie¬_foodie_fairy_) in which quality audience is 8.1 k and authentic engagement being
6.1 k per post.
- It was analyzed that worldwide rank of the page (@moodie¬_foodie_fairy_) is 2,185,996 and the Indian rank of the page is 110,458.
- The audience quality score of the page is 88% which is treated as very good in this there is high percentage of authentic audience and very good like and comment activities.
- It was analyzed that most of the respondents are female i.e., 73.2%. most of the respondents fall under the age group of 25-34 years.
- Majority of the respondents prefer English language i.e., 90%.
- Most of the audience is from the upper secondary education level i.e., 49.8% and majority of the follower's marital status is single i.e., 51.7%.
It was analyzed that the engagement rate is 1.86% which is average.

6.SUGGESTIONS
- A food blogger's viewpoint is more likely to be adopted by Instagram users if the food photograph is appealing, the caption or advice is of high quality, and the timing is just right. Taking into account Instagram's primary function as a photo-sharing website.
- The most popular post could raise awareness of a restaurant's name and boost its reputation. Each each post has the potential to generate buzz with the correct time and trend. These elements would influence how the audience consumed the content.
- It should be highlighted that bloggers should continue to post an eye-catching photo or precise, educational video material in order to maintain the reputation of current Instagram users.

- Since it is simple for readers to identify a blogger's blog from the camera angle, mood and tone of the photo, or the method of video editing, etc., bloggers should stand for a distinct and recognisable characteristic.
- Consumers prefer to read a precise but informative caption, according to their preferences for captions. It implies that bloggers merely describe what customers anticipate from an Instagram review, which often includes the restaurant's name, location, price, and general level of excellence.

7.CONCLUSION

This study adds knowledge to the user-generated content literature in Instagram marketing. In comparison of Text vs Image vs Video type of content, the most popular type of content is Video Content. It is the most attractive and engaging way of content. People get more attracted towards short videos, and the most popular among them is Instagram Reels. Instagram Food Bloggers try to share trendy content so that they can increase their engagement and increase their followers. It makes easier to find new places to dine in and share among their fellow mates. Evidently, the popularity of recipe sharing among "regular" people has been rekindled thanks to food blogs. However, the continual development of technologies for sharing recipes and media linked to food is a far larger process than the evolution of food blogs. The culture of food, as well as culture in general, benefits greatly from food blogging. They demonstrate a revived interest in the "do-it-yourself" movement that is pervasive in both online and offline groups. In addition to this, culinary blogs highlight how the Internet has merged with daily life and offer helpful insight into how our online and offline lives have changed. They serve as a reminder that there will always be new ways to share food and culture, and that we must be conscious of how we relate to technology and the media that deals with food. They serve as a reminder that new ways of interacting with food and culture will continue to develop, and that if we are to comprehend how they both influence and reflect culture, we must constantly reflect on how we relate to food, technology, and the media that deals with it.forced filler, preliminary results have been validated in laboratory scale and preliminary test [6]. The wheat fiber plastic is an environmentally friendly material, which is made of wheat straw, and can be make into cups, straws, plates and other daily necessities. This project focus on the problems of existing products, added and changed the structure (Fig. 2). Rubber pad and shrink tube are added, rubber pad can prevent liquid leakage, and there are many holes in the tube, it can allow air and liquid to pass through. And this design changed the shape of the pressing pumphead, it is bowl- shaped, it can temporarily store a small amount of liquid.

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