BEST ADVERTISING TECHNIQUES FOR JORDANIAN RESTAURANTS ON SOCIAL MEDIA PLATFORMS

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Abstract - The usage of social media has been increasing day by day. People irrespective of their age, gender have been spending a lot of their time on social media. The main aim of this research is to find a reliable way of advertising the food products of restaurants on various platforms of social media using Analytical Hierarchy Process (AHP). It is found that social media is about 73% more efficient than the traditional ways to reach the customers of restaurants. Additionally, Facebook is found to be the best platform for this purpose.

Keywords - Food products; Analytical hierarchy process; Social media advertising.

I. INTRODUCTION

From the beginning, social media has had an important impact on all of us. Social media affected all people who either know or do not know each other in real life. At this point, social media has become much more. Business people use marketing to successfully grow their businesses and to get their word out in a tremendous way. It is known in recent times that social media marketing (SMM) has a strong exposure and excellent impact on the customer, giving that the cost of such advertisement method could be low in many cases compared with traditional ways. SMM can be defined as processes and ways utilized to make the organizations or products popular for customers by using social media websites. SMM becomes the new and modern way for advertising because markets always try to be in the places where the customers are, and because customers spend most of their time on social media platforms, SMM becomes more effective than the traditional ways. The fact is that the clients are hanging out in the online social communities. Through a survey that has been carried out in this research, it is obtained that around 73% of customers with age less than 25 years prefer to see advertisement in social media platforms, as in Figure 1. Accordingly, advertising in social media had more attention last years, especially the selection of best platform to advertise based on many criteria. In Figure2, within the social media platforms. It is found that Facebook, YouTube, and Instagram are the most common platforms for customers. For the this issue, two restaurants in Jordan were used to collect data from the customers regard their perception through the social media about the food from these restaurants. To select the best platform for advertisement, seven attributes are taken into consideration such as cost, engagement, city exposure, interest, country exposure, age, gender. AHP algorithm is used to find the consistency and for comparing different attributes, and thus select the best option.

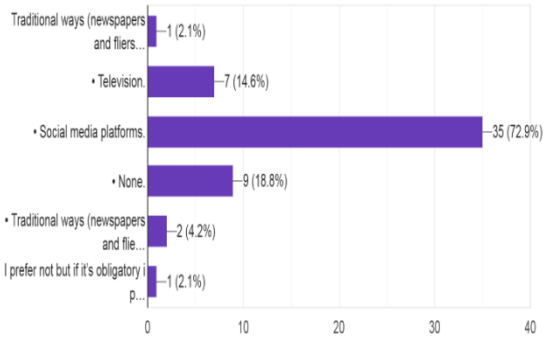


Fig.1. Advertisements Preference for customers

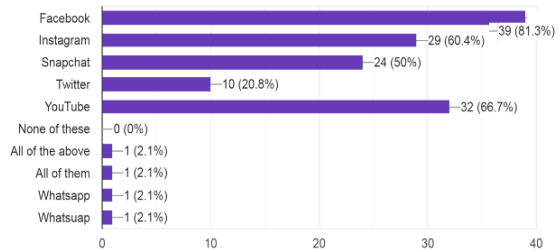


Fig.2. Preferred Social media platforms for customers

II. ANALYTICAL HIERARCHY PROCESS

The Analytical Hierarchy Process is a multiple criteria decision-making method that provides measures of judgement consistency and derives priorities among criteria and alternatives, and simplifies preference ratings among decision criteria using pair wise comparisons. The basic procedure is as follows. First, ratings for each decision alternative for each criteria is developed by pair wise comparison matrix. Developed matrices are normalized, average of each row is found, and consistency ratio is checked. Second, similar to the first step, matrix weights for the criteria is developed, normalized, averaged, and checked. Third, the composite weight for each alternative is calculated and the best alternative with the highest weight is selected. Figure 3 demonstrates the process.

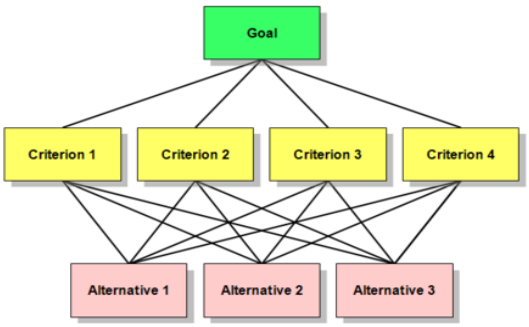


Fig.3. AHP Process

III. LITERATURE REVIEW

Many studies were carried out to investigate the effect of social media advertising and to figure out the best place to advertise. For example, authors of [1] have compare between Facebook and Twitter in term of advertisement effectiveness in the hotel industry. They found that tactics is more important than the sites. So, if the same tactics are used, both Facebook and Twitter will provide the same advertisement effect.

More related studies to the restaurant industries were performed, such as in [2], where the relationship between the social media activities of American restaurants and their performance is established. Similarly, author of [3] has studies the effect of social media advertisements on the quality of food prepared in the Malaysian restaurants which was found as positive impact. For more details about this subject, [4] provides a comprehensive review about the advertisements on social media sites.

IV. METHODOLOGY

Figure 4 explains the methodology and usage of AHP for the given article. The methodology involves several steps, such as selection of criteria, selection of restaurants, comparing the criteria with the help of survey, survey for the restaurant owners and finally determining the best way to advertise the products using AHP. Seven different criteria are taken into consideration such as cost, interest, engagement, country exposure, engagement, city exposure, age, gender. The outcomes of the survey are numbers which can be normalized to measurable data which in turn can be used to apply AHP methodology to given attributes.

4.1 Conducting Surveys and collecting data

For this article, two restaurants are surveyed. Both the restaurants were asked questions as a part of the survey to know the attributes on which owners focus while posting advertisements. The advertisements mainly depend on the location and the purpose of the restaurants. Based on the survey conducted, different attributes were numerically rated on the basis of scale of importance.



Fig.4.AHP methodology for the process

4.2 Constructing the pair-wise matrix

Scale of importance is selected as follows:
1- Equal importance
3- Moderate importance
5- Strong importance
7- Very Strong importance
9- Extreme importance

Scale of importance is used to compare different attributes on the basis of their importance with respect to each other. For example, in Table 1, the numerical value corresponding to the “cost” row and the “country exposure” column is 5 which means that cost is of strong importance compared to country exposure. Similarly the value corresponding to the “country exposure” row and “cost” column is inverse of 5 which is 1/5.

Pair-wise matrix is constructed on the basis of the survey conducted in the restaurants. Given attributes are numerically rated by the owners in the order of importance. With the help of pair-wise matrix, the attributes on which the given advertisement must focus on, is known.

4.3 Calculating Attribute Weights

All the elements belonging to a particular column of the pair-wise matrix are divided by the column sum.

This is called Normalization of pair-wise matrix. Table 2 shows the normalized pair-wise matrix.

All the elements belonging to a particular row of the pair-wise matrix is summed and divided by the number of attributes. This gives the attribute weight corresponding to each row. Table 2 shows the attribute weights of each row.

For example, attribute weight for cost attribute is

(0.291+0.291+0.334+0.264+0.274+0.199+0.173)/7=0.26086.

4.4 Calculating the Average Weight Table

All the elements belonging to a particular column of the pair-wise matrix are multiplied by the corresponding attribute weights. Table 3 shows the calculated value for each element. For example, attribute weight of "Interest" is 0.14914. So every element of "Interest" column in the pair-wise matrix are multiplied by 0.14914.

Value in the "interest" column and "engagement" row is 2*0.14914=0.29828.

Now all the elements belonging to a particular row are summed to give corresponding weighted sum value. Table 3 shows the weighted sum value for each row. For example, weighted sum value of "cost" attribute is

(0.26086+0.26086+0.19542+0.29828+0.43145+0.29488+ 0.16452)=2.08627

'λ' value for each attribute is calculated by dividing the weighted sum value by attribute weight. For example, 'λ' value for "cost" attribute is

2.08627/0.26086=7.99766.

	Cost	Engagement	City Exposu	Interest	Country exposure	Age	Gender
Cost	1	1	2	2	5	8	9
Engagement	1	1	2	2	5	8	9
City exposure	0.5	0.5	1	2	4	8	9
Interest	0.5	0.5	0.5	1	3	8	9
Country exposure	0.2	0.2	0.25	0.333	1	7	9
Age	0.125	0.125	0.125	0.125	0.143	1	6
Gender	0.111	0.111	0.111	0.111	0.111	0.167	1
Sum	3.436	3.436	5.986	7.569	18.254	40.167	52

Table 1: Pair-wise matrix

	Cost	Engagement	City Exposure	Interest	Country exposure	Age	Gender	Attributes weights
Cost	0.291	0.291	0.334	0.264	0.274	0.199	0.173	0.26086
Engagement	0.291	0.291	0.334	0.264	0.274	0.199	0.173	0.26086
City exposure	0.146	0.146	0.167	0.264	0.219	0.199	0.173	0.18771
Interest	0.146	0.146	0.084	0.132	0.164	0.199	0.173	0.14914
Country	0.058	0.058	0.042	0.044	0.055	0.174	0.173	0.08629
Age	0.036	0.036	0.021	0.017	0.008	0.025	0.115	0.03686
Gender	0.032	0.032	0.019	0.015	0.006	0.004	0.019	0.01828

Table 2: Normalized Pair-wise matrix

	Cost	Engagement	City Exposure	Interest	Country exposure	Age	Gender	Weighted sum value	Attributes weights	λ
Cost	0.26086	0.26086	0.19542	0.29828	0.43145	0.29488	0.16452	2.08627	0.26086	7.9976
Engagement	0.26086	0.26086	0.19542	0.29828	0.43145	0.29488	0.16452	2.08627	0.26086	7.9976
City exposure	0.13043	0.13043	0.18771	0.29828	0.34516	0.29488	0.16452	1.55141	0.18771	8.2649
Interest	0.13043	0.13043	0.09385	0.14914	0.25887	0.29488	0.16452	1.222125	0.14914	8.1944
Country exposure	0.05217	0.05217	0.04692	0.04966	0.08629	0.25802	0.16452	0.709765	0.08629	8.2253
Age	0.03260	0.03260	0.02346	0.01864	0.012339	0.03686	0.10968	0.266200	0.03686	7.2219
Gender	0.02895	0.02895	0.02083	0.01655	0.00957	0.006155	0.01828	0.129315	0.01828	7.0741

Table 3: Attribute Weights and Consistency Calculation Table

4.5 Calculating consistency

λmax is calculated by averaging the λs.
λmax=(7.99766+7.99766+8.26493+8.19448+8.22535 + 7.22194+7.07413)/7=7.85373.

Consistency index, (CI)= (λmax-n)/(n-1)
CI=7.85373-7/7-1
CI=0.142288.

Consistency Ratio, (CR)= CI/RI
CR=0.142288/1.45
CR=0.0981296

Since consistency ratio is less than 0.1, thus the metrics are consistent. This means that the data can be trusted to draw conclusions and the customers who filled out the surveys were reliable.

V. CONCLUSION

In our work we came to these conclusions. Modern ways of advertising are 72.9 % more effective than traditional ways. Analytical hierarchy process is the best way of comparing the attributes on the basis of their importance. Since the given metrics are consistent, based on the attribute weights we can draw some conclusions on how to strategize the advertisement policy. As cost and engagement contribute to 26.086% each, cost and engagement are the two major factors on which advertisements must concentrate. City exposure is another factor which contributes to 18.771%. In the survey, people belonging to the age group of 22-23 have opted for Facebook as the most used social media. Hence advertising on Facebook by making some videos of the products would be the most effective way for reaching the customers who looking for restaurants in Jordan.

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