The Effect Of Advertising Campaigns In Encouraging Women's Early Breast Cancer Screening - Empirical Study On Jordan Breast Cancer Program (JBCP) In Amman City

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Abstract: This study aims to identify the effect of advertising campaigns in encouraging women's early breast cancer screening in Amman City – Jordan. In order to analyze the effect of advertising campaigns in encouraging women's early breast cancer screening. The researcher selected certain independent variables (characteristics of advertisement campaign, message content, medium and stimuli) and one dependent variable(early breast cancer screening). The researchers designed a questionnaire and was given out to 380 women respondents who live in Amman and had early detection test of breast cancer in the early detection unit at the King Hussein Cancer Center. Only 348, representing 91.5% of total distributed ones, were valid for the analytical descriptive study. Descriptive statistical analytical method was used for describing the phenomenon of the population using the SPSS to analyze the data collected from the questionnaire. The main result of this study showed that advertisement campaign has a significantly effect in encouraging women's early breast cancer screening in about 54%, and the message content of advertisement campaigns had the most contribution to the effect in encouraging women to get early breast cancer screening in about 48.5%. The research concludes that the message content of advertisement campaigns and the stimuli of advertisement campaigns have the most significance to encourage women's early breast cancer screening.

Index Terms: Advertisement campaign, Breast Cancer, Jordan Breast Cancer Program JBCP

1. INTRODUCTION

Over the past decade, advertisement had a great impact on influencing consumer’s behavior. According to psychologists and scholars; advertisement has a strong effect on a person mentally and emotionally. Some psychologists believe that people are subliminally stimulated which causes them to be smoothly influenced by advertisement [20,25,31,36 and 39]. This research focused on the competent campaigns for breast cancer as it is commonly known that breast cancer is a potentially deadly disease and classified as the second leading cause of death among women, but many women remain ignorant of some of the most basic self-inspection techniques that can help women detect their cancer early, when it’s easier to beat. It is to be noted that breast cancer is usually diagnosed in the late stage when the possibility of the treatment is not as great as in the early detection. Also, high cost of treatment makes it a burden on the family and the country as well to deal with such diseases [2,10 and 16]. Identifying early stage of cancer will save lives; survival rate of early diagnosis versus late diagnosis, 98% versus 16% [5,6,7,10 and 13]. Therefore, cancer that is diagnosed at an early stage, before having the chance to get too big or spread is more likely to be treated successfully. If the cancer treatment becomes more difficult, and generally a person’s chances of surviving are much lower. Breast cancer survival rates are an indication of the successful effect of advertisements campaigns in the early women’s breast cancer screening [13,16,37,47,51 and 52]. Survival rates help to encourage women to do the early breast screening as they clue on survival statistics for women were diagnosed to breast cancer and with the early screening the treatment was successful as it started early. Hence, they help give women a better understanding about how likely it is that the treatment will be successful once diagnosed in early stage. More than 90% of women diagnosed with breast cancer at the earliest stage survive their disease for at least 5 years compared to around 15% for women diagnosed with the most advanced stage of disease [58,59,60,61, and 62]. The success of breast cancer advertisement campaigns will offer a good opportunity for encouraging women for early detection of the breast cancer; which means that we can save women’s lives and decrease the treatment [4,5,6,7,10,13,19,25,and27]. Therefore, this study will concentrate on the effect of advertising campaigns conducted by Jordan Breast Cancer Program in encouraging women’s early breast cancer screening.

2. RESEARCH PROBLEM & QUESTIONS

The main problem here is the hesitation of women to accept the idea of pristine examination. This hesitation comes from the fear of having breast cancer, so this leads to high cost burden with the treatment in addition to the increase in the mortality rate in the absence of the early discovery of the disease. The problem of this research is meant to answer the following main question: Are there any effects for the advertisement campaigns in encouraging early breast cancer screening among Jordanian women?

From this main question several sub questions are derived:
1: Do the characteristics of advertisement campaigns encourage women for early breast cancer screening?
2: Does the stimuli of advertisement campaigns encourage women for early screening of breast cancer?
3: Does the message content of advertisement campaigns encourage women for early breast cancer screening?
4: Does the medium of advertisement campaigns encourage women for early breast cancer screening?

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3 Research Objectives
The study attempts to achieve the following main objective:
1. To identify the effect of advertising campaigns in encouraging women's early breast cancer screening.
From this main objective, sub-objectives were derived:
1. To clarify the effect of advertising campaigns' characteristics in encouraging women's early breast cancer screening.
2. To identify the effect of advertising campaigns' stimuli in encouraging women's early breast cancer screening.
3. To explain the effect of advertising campaigns' message content in encouraging women's early breast cancer screening.
4. To explain the effect of advertising campaigns' medium in encouraging women's early breast cancer screening.

4 Research Hypotheses
Based on the research problem and objectives, the researcher supposes the following main hypothesis:
H0: There is no statistically significant effect at (α ≤ 0.05) for advertising campaign in encouraging women's early breast cancer screening.
From this main hypothesis, the following sub-hypotheses were derived:
H01: There is no statistically significant effect at (α ≤ 0.05) of the characteristics of advertising campaign in encouraging women's early breast cancer screening.
H02: There is no statistically significant effect at (α ≤ 0.05) of the stimuli of advertising campaign in encouraging women's early breast cancer screening.
H03: There is no statistically significant effect at (α ≤ 0.05) of the message content of advertising campaign in encouraging women's early breast cancer screening.
H04: There is no statistically significant effect at the significance level (α ≤ 0.05) of the medium of advertising campaign in encouraging women's early breast cancer screening.

5 Research Model
Based on literature reviewed [3,4,5,7,8,9,10,11,12,14,15,16,18,19,20,22,23,24,27,32,34,35,38,45,47,48,53,54 and 57], the researchers designed research model represented in figure 1

Figure 1: Research Model

6 Literature Review

6.1 Advertisement Campaigns
Advertising campaigns may have many purposes depending on the delivered message. A campaign may be designed to do the following: raise awareness of your company, product, or service within a clearly identified target market. Communicate the benefits of your product or service. For the promotional activities, the firm can use its own advertisement department or an external advertisement agency. The planning of an advertisement campaign is the most important because it determines the degree and form of manager participation in the implementation of the plan of an advertisement campaign. A further planning process or the process of implementation of the plan may be fully or partially delegated to the marketing department or advertisement agency [58]. In addition, thousands of breast cancer-themed products are developed and sold each year; some of these items are everyday products that have been repositioned to take advantage of cause-related marketing, clothing, jewelry, candies, and coffee mugs. These blended value objects offer consumers an opportunity to simultaneously buy an object and make a donation to a breast cancer organization. Some of these products are produced and/or sold by breast cancer survivors or charities for fundraising purposes, while others are for profits in addition to fundraising. Although advertisement costs are rarely disclosed, some companies have been found to spend far more money advertisement "pink items" and tie-ins than they donate to charitable organizations supporting research or patients [58].

6.2 Effective Advertisement Campaign Components
The concept of advertisement effectiveness contains such different ideas as psychological and social effect expressed in a certain impact on the society. In particular, the influence on the formation of taste preferences of people, their views and ideas about different moral and material values. The effectiveness of advertisement campaigns is measured by reaching targeted indexes of awareness, audience preferences and achieve all the goals and objectives planned. In order to encourage women's early breast cancer screening, the advertisement campaigns must focus on many components to ensure their effectiveness which are as follows [9,39,24].

6.3 Characteristics of Advertisement Campaign
The researcher illustrates that the most important characteristics of advertisements campaigns are the intensively of advertisements campaigns for early detection of breast cancer throughout the year, and the diversity of these campaigns. In addition, campaigns must be renewed, realistic and characterized by modernity and development because these characteristics motivate women to do the early detection of breast cancer, and that is reflected in the increased number of women's get screening. From the researchers' point of view, we have to take in consideration the following points while
defining the characteristics of advertisements campaigns: [22,3,10].

1. Easy access for the advertisement campaigns.
2. The availability of advertisement on time.
3. Watching the campaign advertisement more than once.
4. Advertisement campaigns are an important source of information. Also, they are a reliable one.
5. The capacity of the campaigns.

6.4 Stimuli of Advertisement Campaigns
The researcher illustrates that the most important stimuli of advertisements campaigns is stand for: [11]. Attention: The audience begin to be attracted to the important of early breast cancer screening to save the life, through using powerful words, bold colors or creative images to catch prospective women attention and to get them focus on breast cancer screening. Keeping audience interested is the next step. Through not overwhelm the viewer with a lot of information, Keep the messaging simple and focused, and be sure to provide a way for interested women to contact the place of early detection once they stop considering at the advertisement by including the phone number, website address and/or social media links. Desire: The stage of desire for the hierarchy of effects goes hand in hand with the stage of interest. The campaign focuses on balancing it with an attractive phrase or image that allows the viewer to see exactly what can be saved. If women get screening, they may include a picture of a woman caring for her children by preparing food for them. The image is clear: Your women interest to living and staying with her children that she loves by taking care of her health through prevention and early detection of breast cancer. Action: The final step is action. They want the viewers of advertisement campaign to take the next step and actually taking the service. They have to make this as easy as possible for potential audience by encouraging them to take a direct action and keep things focused and simple to generate an action response from the target audience. From the researcher's point of view, we have to take in consideration the following points while defining the Stimuli for advertisements campaigns [11].
1. Advertisements campaigns motivate people to do early detection tests.
2. Easily communicate with places where to do these tests.
3. Advertisements campaigns show the importance of the early detection in the preservation of life.
4. Advertisements campaigns show the facilities available to do early screening.

6.5 Medium of Advertisement Campaigns
The main methods of advertisement campaigns are media, direct mail and outdoor advertisement [15]. The medium plays a vital role as the link between health workers and the larger public. Each medium has its merits and its handicaps. The suitability and profitability of any one type varies from manufacturer to manufacturer and may vary for a single manufacturer too. Changes are the only rule. The advertiser has to determine how many there are and where they are. Then the selection process involves how to send an effective advertisement message economically to the group of audience, the length of the campaign period and the cost which he can afford—at a figure which will make the advertisement effort effective [15].

6.6 Message Content of Advertisement Campaigns
The researcher explained that the most important thing is to build clear content for message of advertisement campaign by providing sufficient information, also the content of the message must be very attractive, creative, exciting and convincing. Moreover, the information in the message should be clear, impressive, and easy to understand. For instance, Jordan Breast Cancer Program focus in short and memorable slogan. Short sentences can increase their impact on encouraging women’s early breast cancer screening because it is easy to understand and is more unforgettable. From the researcher's point of view, we have to take in consideration the following points while defining the Message content for advertisements campaigns: [53].
1- Advertisement message content provides enough information.
2- The message content for early detection is attractive and exciting. Also, convincing.
3- The message content of the information available in the message is a clear, impressive, and easy to understand.

7 Methodology
The study aims to identify the effect of advertisement campaigns in encouraging women's early breast cancer screening which was implemented by King Hussein Cancer Foundation and Center for encouraging women to get screening. The study includes 4 independent variables (Characteristics of advertisement campaign, Stimuli of advertisement campaign, Message content of advertisement campaign and Medium of advertisement campaign), and one dependent variable (Encouraging women's early breast cancer screening), which form one main hypothesis and four sub hypotheses. The researcher used the descriptive statistical analytical method for describing the phenomenon of the population, the researcher depended upon the questionnaire for collecting data to analyze and test the hypothesis and literature review was used for the theoretical part of this study. The researcher translated the questionnaire into Arabic language to distribute it to the purposive sample of respondents.

7.1 Research Population
The size of research population was identified by KHCC data based. Since KHCF has been launched JBCC, about (5000) Jordanian women examination breast cancer from all Jordan, (3200) women live in Amman city the capital of Jordan. The research targeted women who live in Amman city and have examined breast cancer since the program began, so the population size are (3200).

7.2 Research Sample
Regarding to Sekaran table [49] and regarding to the population size (3200) the representatives sample shouldn’t be less than (346), for more accuracy and to avoid mistakes, the researcher distributed (380) questionnaires. The questioners were distributed for women who have visited the center for examination, the researcher depended upon Purposive samples for distributing the questionnaires. About (14) questionnaires were unreturned which represents
(3.7%) of all questionnaires. After reviewing them, (18) questionnaires were refused due to some data and questions left blank, so about (91.6%) of the returned questionnaires were valid to be analyzed. The sample size is (348) respondents. The questioners were distributed inside for women who visited the center for examination. The researcher depended upon random samples for distributing the questionnaires.

7.3 Validity and Reliability
The questionnaire was checked and verified by many academics from marketing departments from different universities. The researcher took into consideration the notes and recommendation son the questionnaire and accordingly modified it to meet the research requirements. The reliability test is conducted. Coefficient Cronbach’s Alpha is a measure of reliability or internal consistency. A value of Cronbach’s Alpha of (0.7) or above is consistent with the recommended minimum values stated by [40].

7.4 Respondents’ Profile
The Age of respondents was divided into 6 levels, percentage of women between (41-50 years) had the largest participants about (33%). The Marital status who had married were approximately (70%). Who hold the bachelor degree were approximately (44%) in the sample. Also, most of women live in West of Amman (49%). The respondents in the sample who had a two year and more visit the doctor for early detection breast cancer are approximately (44%). Regarding the frequency of the most popular advertising medium in early detection campaigns belong to TV approximately (31%).The results from the previous table shows that breast cancer mostly diagnoses women between 41-50 years which indicates on the importance of targeting this category in breast cancer campaigns. Also, the highest results were recorded in west of Amman as people are more educated and do realize the importance of the early detection of cancer. That result was reflected again from the high record of women who carry bachelor degree and have cancer, which means that there is a correlation between the level of education and the motivation to do breast cancer screening. Many people die without knowing the cause of their death which could be cancer in some cases, but since they haven’t done the screening they never knew about it.

Table (1) Correlations of Independent Variables

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Characteristics of Advertisement Campaign</th>
<th>Stimuli of Advertisement Campaign</th>
<th>Message Content of Advertisement Campaign</th>
<th>Medium of Advertisement Campaign</th>
</tr>
</thead>
<tbody>
<tr>
<td>Characteristics of Advertisement Campaign</td>
<td>1</td>
<td>0.489*</td>
<td>0.578</td>
<td>0.514*</td>
</tr>
<tr>
<td>Stimuli of Advertisement Campaign</td>
<td>1</td>
<td>0.673*</td>
<td>0.541</td>
<td></td>
</tr>
</tbody>
</table>

(0.05), therefore, we reject the null hypothesis and accept the alternative one which states that There is statistically significant effect at the significance level (α ≤ 0.05) for Advertisement campaign in encouraging women’s early breast cancer screening. The relationship between the dependent and independent variables is strong. It is more than (0.5) (Cohen, 1988), R= 0.734. Also, the R² = 0.539, which means that the independent variables contribution affects the dependent variable is about 53.9%. Since the value of the calculated t-value for the variables (Stimuli of Advertisement Campaign 4.704, Message Content of Advertisement Campaign 7.427), are more than the t-value table (1.96) this

**. Correlation is significant at the 0.01 level (2-tailed).

7.2 Hypotheses Testing
The linear regression procedure examines the effect of the set of Independent variables on the dependent variable. In this research the hypothesis testing is based on three regression linear types, Multiple, Simple and Stepwise Regression. For the main hypothesis the multiple regression is calculated, for sub- hypothesis simple regression is used, finally Stepwise Regression was used to indicate which independent variable has the most effect on the dependent variables Table (2) shows the Result of Multiple Regression for the Main Hypothesis.

Table (2) Result of Multiple Regression for the Main Hypothesis

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>R</th>
<th>R²</th>
<th>F</th>
<th>D</th>
<th>G</th>
<th>Independent Variable</th>
<th>B</th>
<th>T</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enco</td>
<td>0.7</td>
<td>0.5</td>
<td>78.7</td>
<td>18</td>
<td>0.0</td>
<td>Characteristics of Advertisement Campaign</td>
<td>0.0</td>
<td>69</td>
<td>1.0</td>
</tr>
<tr>
<td>raging women’ s early breast cancer screen</td>
<td>0.34</td>
<td>0.39</td>
<td>0.0</td>
<td></td>
<td></td>
<td>Stimuli of Advertisement Campaign</td>
<td>0.2</td>
<td>75</td>
<td>4.7</td>
</tr>
<tr>
<td>Encouraging men’ s early breast cancer screening</td>
<td>0.0</td>
<td>00</td>
<td></td>
<td></td>
<td></td>
<td>Message Content of Advertisement Campaign</td>
<td>0.4</td>
<td>43</td>
<td>7.4</td>
</tr>
<tr>
<td>Encouraging women’ s early breast cancer screening</td>
<td>0.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Medium of Advertisement Campaign</td>
<td>0.0</td>
<td>88</td>
<td>1.8</td>
</tr>
</tbody>
</table>
means that there is statically significant effect on the dependent variables. But about the other independent variables (Characteristics of Advertisement Campaign 1.056, Medium of Advertisement Campaign 1.869), the value of the calculated t-value is less than the t table (1.96) this means that there is not statically significant effect on the dependent variables. And by this, the main question of the study – Are there any effects for the advertisement campaigns on encouraging early breast cancer screening among Jordanian women – is answered.

8 Conclusion

The main findings of this study were:

1- There is statistically significant effect for advertisement campaign elements (Characteristics of advertisement campaign, Stimuli, Message content, Medium) in encouraging women’s early breast cancer screening, the variables effected encouraging women’s early breast cancer screening about 54%. Also the advertisement campaign elements have strong relation with encouraging women’s early breast cancer screening. This conclusion goes in consistence with many previous studies [24] the results showed the impact of advertisement in terms of characteristics of advertisement, content of advertisement massage, means of communication, and stimulus of advertisement collectively in the impact on purchasing behavior of Jordanian consumer to cars. It also matches with the study of [11] advertisements that incorporated a clear fear appeal and an enclosed environment garnered higher scores on the RIA Scale than those in a more traditional presentation, resulting in a presumed higher impact, resonance, and efficacy with the public.

2- There is statistically significant effect of the message content of advertisement campaign on encouraging women's early breast cancer screening and the variable has the highest contribution in encouraging women's early breast cancer screening about 48.5%. This result matches with the [53], the Message Content (attractive, creative, exciting and convincing) effects of advertising attitude, brand attitudes and purchasing intentions. It also matches with the result of [24] content of advertisement massage has effect on purchasing behavior of Jordanian Consumer.

3- There is statistically significant effect of the stimuli of advertisement campaign in encouraging women’s early breast cancer screening, in addition the variable has the second highest contribution to consumer’s behavior of about 39.5%. This result matches with the study of [22]. The annual breast cancer awareness campaign is proving effective in stimulating online activity and may hold useful lessons for other cancer awareness initiatives. It also matches with the result of [11]. Advertisements that incorporated a clear fear appeal has linked the factors that are pulling the attention of people in the advertisements on the response of people to the desired goals.

4- There is statistically significant effect of the medium of advertisement campaign on encouraging women's early breast cancer screening. The variable has a contribution to encouraging women's early breast cancer screening of about 27%. This result matches with the study of [16]. Television, radio, newspapers and magazines and SMS messages can be used effectively to raise awareness of BCS. It also matches with the result [2]. Listening to the radio or reading the newspaper “almost every day" was found to be positively associated with the likelihood of breast cancer screening as well as public media.

5- There is statistically significant effect of the characteristics of advertisement campaign on encouraging women's early breast cancer screening. And the variable has a contribution to women's encouraging about 26.6%.

6- The stimuli of advertisement campaign has played the most important role for effect on encouraging women's early breast cancer screening, its mean value was in high level (4.09).

7- Also the characteristics of advertisement campaign located in high level, the mean is (4.04), which has effect on encouraging women's early breast cancer screening.

8- The variables message content of advertisement campaign and medium of advertisement campaign both have effect on encouraging women's early breast cancer screening with mean value (3.81 and 3.72).

9 Recommendations

Based on the above analysis and conclusions the researchers suggest the following recommendations for JBCP:

1- Develop their advertisement campaigns, through innovative and attractive ideas which enhance women's early breast cancer screening.

2- Work extensively to make their advertisement campaigns available frequently throughout the year to remind women by early breast cancer screening.

3- Take into the consideration the easiest procedure for women to contact responsible parties for early detection appointments.

4- Develop characteristic of advertisement campaign to be more convenient to attract the maximum target group of women to encourage them to do the early breast cancer screening.

5- Develop the massage content of advertisement campaign which will be attractive, easy to be understood and short to be reached effectively.

6- Intensify their efforts on the most effective medium of ad campaign for early breast cancer screening such as TV and social media campaign to attract women early breast cancer screening.

7- Suggestion for future research in the effect of Social Marketing on Health awareness

10 Acknowledgments

The authors would like to thank Zarqa University for the continuous support. In addition, sincere thanks for the participants at King Hussein Cancer Center for their cooperation in filling up the research questioner.

References


