A Comparative Analysis of Mobile and Email Marketing Using AIDA Model

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ABSTRACT

This study assessed the effectiveness of mobile and email marketing channels using AIDA model. The study used questionnaires based survey to collect data. The collected data were analyzed through logistic regression. The study is based on the marketing channels adopted by a mega store. Results indicated that mobile marketing was more effective as compared to email marketing. This study was unique in the sense that comparison between both channels based on AIDA model was analyzed for the first time. It is suggested that marketing professionals can increase their sales using mobile marketing; however, this effort should be supplemented by using e-mail marketing.

KEY WORDS: Mobile Marketing, Email Marketing, AIDA Model

INTRODUCTION

Advanced technology has altered the way of doing business and minimized distances among businesses and its customers. Nowadays, it is easy for businesses to intermingle with customers efficiently and quickly at lower cost and shorter period of time around the world. In the contemporary business environment, mobile phone and electronic mail play important role in communication.

Mobile marketing is the use of cell phones as a source of marketing communication. Shankar and Balasubramanian's (2009) defined it as “the two way communication and promotion of an offer between a business and its customers via cell phones”.

Some international brands like McDonalds, IBM and Nike are using mobile phones as a communication channel to convey business messages to their customers (Bauer et al., 2006). The usage of mobile phones has increased exponentially since the mid 1990’s (Bauer et al., 2006). Recent studies indicate that many of the world’s leading brands are planning to expand their mobile marketing practices and devoted sizeable portion of their budgets for mobile marketing activities. Ankeny (2012) for example, noted that businesses spent approximately $15 billion on mobile marketing in 2012 around the world and anticipated that mobile marketing expenditures will increase in future. In 2007, SMS users reached 2.4 billion around the globe (Jason, 2013). By 2008, around the globe MMS usage had crossed 1.3 billion active users who had sent 50 billion MMS messages and created 26 billion dollars per year (Ahonen et al., 2009). At present, there are 87% of the world population is mobile subscriber and 1.08 billion subscribers are smartphone users (Anand, 2013). In the USA, cell phone users are 88% of the total population and those who are using internet on their cell phone are 55% (Aaron, 2013). According to Karjaluoto and Leppäniemi (2005), 94 % of mobile advertising are read by the customers, 23 % forward it to others and 15% responding the message in some way.

Likewise, electronic mail (E-mail) is also one of the generally used marketing channels around the world. It can be defined as “the business practice of sending an email to people on a list in the hopes of selling them goods and services” (Gardner, 2012).

Email provides the opportunity of real time interactions and building relations with customers in multiple ways (Mehta & Sivadas, 1995). Email marketing has advantages for both businesses as well as consumers. For business, usage of e-mail as a means of distributing promotional messages is cost effective as it requires lesser expenditure to set up (Moustakas et al., 2006). While for consumers the advantage lies in getting products or services that increase their wellbeing (Grunert, 1996; Gengler & Thomas, 1995).

According to Pavlov (2008) email marketing campaigns create about twice return on investment than other online marketing tools such as web banners and online index advertisements. There are more than 80% businesses involved in e-mail marketing (Gray, 2000). Businesses are spending approximately $ 1.51 billion US dollar on email marketing and is expected to grow to $ 2.468 billion in 2016 (US Interactive Marketing Forecast, 2013).

Hierarchy of effects model was initially introduced for the assessment of immediate and media- specific effects of campaigns (Cavill & Bauman, 2004). Hierarchy of effect is a linear theory of marketing and advertising which presumes that consumers must go through a rational and sequential series of steps that ends up in steps such

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as, attention, interest, desire and purchase decision (Grover & Vriens, 2006). As stated earlier, hierarchy of effects model was used to assess the impact of various marketing campaigns. AIDA is one of the well known model of the hierarchy of effects theory. However, this study is using AIDA model to assess the effectiveness of mobile and email marketing. This model has not been used, according to author’s best knowledge, to compare the effects of mobile and email marketing. This study will try to fill the literature gap by comparing the effectiveness of both marketing channels. This objective will be achieved by analyzing the impact of four components of AIDA model, i.e “awareness”, “interest”, “desire” and “action” on the email and mobile marketing using logistic regression.

LITERATURE REVIEW

Hierarchy of effects:

Early Development Phase

Initially hierarchy of effect model was developed in 1898 by St. Elmo Lewis (attention, interest and desire) known as AID. Shortly thereafter, Lewis added a fourth step “get action” to his original model. This model came’s to be known as AIDA and is still one of the well-known model of advertising (Barry, 1987).

In 1911, Arthur Frederick & Sheldon added another step “Satisfaction” to the Lewis AIDA model and the original model became AIDAS (Barry, 1987). Strong (1922) criticized that Sheldon five step hierarchy by suggesting that five mental states (AIDAS) was not the goal the seller should strive for, he further noted that this formulation was likely cause for many poorly presented advertisements. In 1935, Jenkins suggested that all stages of advertisements must be effective towards action and supportive for ease of understanding.

Bedell (1940) noted that the hierarchy of effects model is still missing with one important element i.e. “conviction”. He believed that customers need to be convinced while going to the last step i.e. “action”. Thus according to him the model should be arranged in the following steps i.e. Attention, Interest, Desire, Conviction, and Action.

Albert Fery presented his basic idea in 1947, where he added another dimension i.e. “education”. He believed that educating customers is also a part of advertising, without educating customers products can be misused. Study also emphasized knowledge about local conditions, because knowledge of these conditions helps in understanding consumer requirements (William, 2001). According to Devoe (1956), previous models were not differentiating between attention to the products and attention to the advertisement. Study recommended that advertisers should differentiate between the two. It is because both processes are not based on same steps, as he recommended that if the aim is to create attention to products then the sequence of steps should be “attention, interest, desire, conviction and action”, while in the latter case the sequence should be attention, interest, desire, memory and action”.

Modern Development Phase

The modern phase of the model development started from the study of Lavidge and Steiner (1961), as they studied it from the psychological point of view. They introduced the ideas of cognition, affect and conation to the hierarchy of effects. According to Lavidge and Steiner (1961) consumers do not go automatically to the purchase decision without taking an interest in other steps of advertisement. They go through a series of six steps before purchase. These steps included “Unawareness, Awareness, Knowledge, Liking, Preference, Conviction, and Purchase”. Although unawareness is not necessary. However, consumer may not go through each step, rather she can take various steps simultaneously. Therefore, this model can be further filtered down to three steps, i.e. Cognition (awareness or learning), Affect (feeling, interest or desire) and Behavior or conation (action).

Rogers (1962) developed the response hierarchy model known as adoption model for the introduction of new products. Rogers proposed the idea that consumers before making purchase decision compare related products with the new product. Therefore, his new model should include the following steps, i.e. “awareness, interest, evaluation, trial and adoption”.

Sandage and Fryburger (1967) emphasized the importance of information about customer experiences while designing advertisements, as their exposure and perception affect the advertisement’s perception.

William and McGuire (1969) noted that beside other things, communication and presentation of advertisements are also important. Longman’s and Kenneth (1971) found that customer’s attraction on real time is essential in creating beliefs, and it is inculcation of deeper believes that leads to purchase decision.

Some Challenges and Defenses

Later research pointed towards the lack of products’ inherent characteristics in the model that affect the customer buying behavior. Anderson et al, 1979 noted that “Brand loyalty” is an important part of the decision making process of customers. Loyal customers’ are more liable to purchase the preferred branded products,
Therefore, brand loyalty must be included in the model. In 1983, Moriarty criticized the hierarchy of effects model, where he suggested that awareness, interest, desire, and action as assumed previously, should not be considered depending on each other, rather these steps are independent. MacInnis and Jaworski (1989) emphasized on information processing abilities of customer in advertisements. In 1998, Rossiter et al. criticized the hierarchy of effects model and suggested that without customers need for some product, an advertisement may be useless, first customers feel about their needs than creates brand awareness, judge it and finally make purchase decision. Rossiter et al proposed that model should include the steps like, i.e. Category need, Brand awareness, Brand attitude, Brand purchase intention and purchase facilitation.

To sum it up, over the course of time, marketers and researchers described different steps of hierarchy of effects model. However, as suggested by Belch and Belch (2009) customers always passes through the steps while going to purchase as, i.e Awareness, Interest, Desire and Action i.e. AIDA. This notion is also supported by Derrick White (2000) as he concluded that “AIDA is probably the oldest acronym in marketing. It is the best and will never change”.

It is in this context of historical development of AIDA model, we are proposing to use AIDA model to compare the mobile and email marketing.

**Mobile Marketing**

Today’s the environment of doing business has entirely changed due to complexity and competition created by globalization and improvement in communication technology (Kotler, 1999). “Advances in information and communication technologies are not only offering new marketing channels for companies but also significantly influencing the ways in which companies conduct their businesses and marketing activities” (Barutcu, 2008). Businesses are investing a huge amount of money in the development of mobile as a marketing tool and other digital channels. Marketers are now using mobile phone as an advertising channel with new features as compared to traditional media (Karjaluoito et al., 2004).

Mobile marketing is one of the efficient sources to get a positive response from customers (Barwise & Strong, 2002). Mobile phone users have positive perceptions towards mobile marketing as it saves consumer’s time, money and provide useful information (Standing et al, 2005). Consumers show a positive attitude towards advertising message through mobile marketing (Haghirian et al., 2005).

Mobile marketing is the right source to provide personalized information (Carroll et al., 2005). Mobile marketing provides personalized information to a target market and build personal relations with customers (Sultan & Rohm, 2005). Mobile marketing provides personalized information in an interactive way with no place and time location (Smutkupt et al., 2010).

Mobile marketing has minimized the risk of providing misinformation to target audience (Jensen, 2007). Mobile marketing provides trustworthy and secured information about a business products and services to facilitate their target audience (Boudriga, 2009).

SMS advertising is an effective source in stimulating the response of customers and in brand awareness (Scharl et al., 2005). SMS is a communication channel which makes it possible to directly reach target audiences through short text messages (Davis, 2002). SMS marketing is highly applicable for creating brand awareness and businesses are now using greater degree of text message advertising than other direct marketing tools (Shankar & Balasubramanian, 2009).

The Universities of South Africa (UNISA) has implemented the services of mobile communications for their students to receive and send SMS messages (Madiope et al., 2005).

MMS marketing is an advanced and a standardized source of communication to share images, video and audios to targeted customers. China is a country to make MMS as a major commercial message (Ahonen et al., 2009). Norway is also the advanced MMS market in Europe (Ahonen et al., 2009).

Mobile marketing will be the first advertising platform in the near future (Carroll et al, 2005). According to a guesstimate the revenue from mobile handset is US $ 258.9 billion in 2013 and will reach to US $341.4 billion by 2015 while sales for smartphone is estimated 75.8 % of the total (Rohan, 2013).

**Email Marketing**

Email marketing is a kind of direct marketing where a business sending its commercial message to an individual or a group of people who are using email. Electronic mail (E-mail) is one of the widely used marketing channels around the world. In a broad sense, all types of email like ads, business request, and brand awareness would be considered as email marketing (US Interactive Marketing Forecast, 2013).

Email marketing occurs when a business sends its commercial message to their customers easily and quickly by the use of electronic mail. Email is the source of exchanging information between businesses and targeted customers (MacPherson, 2001).
Email marketing is the low cost communication channel to stay connected with the clients (Dan, 2013). Email promotion campaigns can be implemented easily and quickly with low cost than other promotional campaigns (Zeff & Aronson, 1997). Advertisers are providing sufficient information about their products in email promotion campaigns in very low cost (Bush et al, 1998). According to Internet Advertising Bureau, email promotion is the important part of today business because television audiences are moving towards internet and online ads are creating more awareness than other mediums with low cost (Tzu et al., 2001). Tahereh and Zahra (2012) noted that internet as a whole, is more effective advertising platform than all other traditional mediums.

Email marketing enables businesses to reach million people and receiving their replies around the globe in seconds (Kinnard, 2002). Email enables businesses to transmit on time information that enhances personalization (Nussey, 2004). Email enables marketers to track the actions of targeted customers through analyzing results on actual time (Blumberg, 2005). According to an estimate there are more than 80% businesses involved in email marketing (Gray, 2000).

Conceptual Model

The usage of cell phones and email as a marketing tool has increased from last few years. Many leading organization have adopted mobile phone and email as a marketing mean to create brand awareness and increase market response (Bauer et al., 2006; Fiona & Neil, 2011). To create greater response businesses use different techniques in their ads. AIDA model is often used to measure the effectiveness of advertisements (Gharibi et al., 2012). Researchers suggested applying the concept of AIDA model in online marketing. According to Ashcroft and Hoe (2001) the concept of AIDA model of advertising can be applied to online marketing. Recently, Wood and Burkhalter (2013) gave inspiration to apply the concepts of AIDA model in business promotion on twitter and other social network. While application of AIDA model in the cases of online marketing and social networks marketing is important, we still feel that Email and mobile marketing are much unexplored areas, where we need to know their effectiveness. Therefore, we are conceptualizing AIDA model to be applied to measure their relative effectiveness.

Mobile and E-mail marketing channel are dependent variables of the study. These variables are assumed to be influenced by the independent variables. The independent variable is also known as predictor variable and an input to the process that influences the dependent variable. The study includes four independent variables in the model that are awareness, interest, desire and action.

The conceptual framework that applied in the study is visualized below. This conceptual model is developed to analyze the impacts of independent variables on the dependent variables.

Figure 3.1 Proposed Research Model

Awareness

Awareness is the first step of marketing process and is an introductory stage, where customers get to know about the existence of service (Rowley, 1998). Businesses seek identity and visibility for the product it is going to offer (Rowley, 2002). At this stage, businesses need to create greater awareness among their targeted customers. Therefore, while advertising for such products, the primary aim of advertisers is to create awareness about products benefits and characteristics (Baca et al., 2005). It is awareness that lead a customer towards tentative trial of advertised product or service (Lancaster & Massingham, 2013).

Marketers try to become a part of customer’s life and stay in touch with them. Providing updated information keeps customers aware and thus leads toward predictable change in consumer’s behavior (Meyrick, 2006). Lack of awareness among customers may affect brand sales (Jensen & Jepsen, 2007). Mobile marketing is one such source of creating awareness (Uzunboylu et al., 2009). Mobile marketing made it possible to create greater
awareness in target area which was not possible earlier (Ehteshami, 2013). Similarly, email is also an effective tool to create market awareness (Sterne & Priore, 2000). Both of these channels are much in current trend for example, according to US Interactive Marketing Forecast for the period 2011-2016 estimated 43% growth is expected in email marketing and 51% growth is expected in mobile marketing. Although, both are growing rapidly, however, for our study we propose that:

**H1:** Promotional offer through mobile marketing channel creates greater awareness than email marketing channel.

**Interest**

Advertisers make efforts to develop interest in their products (Rowley, 1998; Broeckelmann, 2010). Interest in a particular business may appear when customers show it in a particular product that he knows (Ghirvu, 2013). Pharmaceutical companies are spending huge amount of money to create a higher level of interest in their product and motivating customers to seek more about them (Baca et al., 2005).

According to Aybar and Gokaliler (2011) mobile marketing is one of the interesting platforms for integrating messages having unique characteristics. It is cost effective and enjoyable medium where customers show positive perceptions and interest to advertiser’s messages. Because of customers interest advertisers are now developing mobile devices as part of their marketing campaigns. This is also suggested by Bamba and Barnes, 2007, as they concluded that customers like to receive promotional offers on their cell phones and show positive perceptions. This is also true for email marketing, as it also provide interesting information (Sterne & Priore, 2000).

According to Krishnamurthy (2001) customer shows interest in email marketing as it provides relevant, cost effective and useful information. To compare both channels we hypothesize:

**H2:** Promotional offer through mobile marketing channel creates greater interest than email marketing channel.

**Desire**

Desire is the aspiration about a particular product and is the third part of AIDA model (Ghirvu, 2013). Desire is the state of motivation where feelings compel to take action. To effectively create desire, advertisers add relevant characteristics and features in their products and explain the benefits in such a way that how you will solve the customers problems (Richardson, 2013). At this stage, advertisers try to develop strong feelings of wanting their products (Rowley, 1998). Desire can be created by presenting exact and correct information’s that fulfill customers’ needs.

Advertisers send interesting videos and MMS messages to create desire through mobile marketing (Barutcu, 2007). On time information’s and personal messages may create loyalty and desire to take action. At the same time, email is also an interesting marketing channel that influence customers mind to create purchase desire (Lorette, 2014). Both the channels play a significant role in marketing communication, however, we hypothesize for the study that:

**H3:** Promotional offer through mobile marketing channel creates a greater desire than email marketing channel.

**Action**

Action is the purchase of products and is the state of feelings, where customer emotions are effective to buy the product. These effective emotions make real purchasing (Rowley, 1998). Action is the last step of buying process in AIDA model, where marketers focus on cognitive process along with products purchasing by customers (Ghirvu, 2013).

Marketers offer discounted prices, due to these reason customers take action that increases sale (Ghirvu, 2013). Attracting customers and successfully leading them towards action requires marketers to tell customers how much benefits you have for them (Rawal, 2013).

According to Barutcu (2007) mobile marketing is helpful in purchase action. In mega stores, customers can capture barcode picture and compare with branded competitors using cell phones. Mobile phone made it possible to purchase desired products without leaving houses and offices. Similarly, email marketing is also a source of business growth. According to Moth (2013) email is an effective marketing channel that helps in buying process (action) like download the brochures and many more. Therefore, to compare the effectiveness of both marketing channel we hypothesize that:

**H4:** Promotional offer through mobile marketing channel creates greater purchase action than email marketing channel.

**METHODOLOGY**

The study used questionnaires based market survey to collect data. The respondents of the study were the registered customers of Metro-Habib Cash & Carry, a mega store in Islamabad (Pakistan). Metro-Habib Cash & Carry Pakistan uses cell phone and email as marketing channels to keep their customers updated. Mobile marketing includes promotional SMS and calls, while email are sent with promotional material along with further details.
provided in portable document files (PDF). The study used snowball sampling procedure for data collection. The sample size of the study was 350 registered customers, however, only 220 respondents participated in the study.

The survey questionnaires consist of demographic information’s as well as data on important variables of the study. These items are adopted from different sources for example, Heinonen et al., 2007; Chowdhury et al., 2006; Merisavo et al., 2007. All the questions were close ended and respondents were given options to mark which suits them the best. Before filling the questionnaire, respondents were asked that through which marketing channel they receive promotional messages. They have to select one of the two options, i.e. either through email or mobile. The items used were similar for both the media. All the items are measured from the range; strongly disagree to strongly agree. It was conveyed to the respondents that this survey is purely used for the purpose of research. Questions were developed in simple words for better understanding.

To check the reliability, a pilot study was conducted. The study collected data from 50 registered customer’s of Metro-Habib Cash & Carry Pakistan for conducting pilot study. The results of pilot study are presented in the following table:

<table>
<thead>
<tr>
<th>Variables</th>
<th>Number of items</th>
<th>Cronbach Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Awareness</td>
<td>6</td>
<td>0.787</td>
</tr>
<tr>
<td>Interest</td>
<td>9</td>
<td>0.857</td>
</tr>
<tr>
<td>Desire</td>
<td>10</td>
<td>0.892</td>
</tr>
<tr>
<td>Action</td>
<td>7</td>
<td>0.861</td>
</tr>
</tbody>
</table>

After having constructed questionnaires and collected data, the study used logistic regression for the statistical analysis. Logistic regression is used for predicting the outcome of a categorical dependent variable and measure relationship between a categorical dependent variable and one or more independent variables (Fidell & Tabachnick, 2007).

**RESULTS**

The study used descriptive statistics to find out the demographic information’s of the respondents. Following this statistic, correlation among independent variables, and logistic regression were used to analyze the collected data.

Table II provides the demographic sketch of the respondents, in term of gender, the percentage ratio of female is 29.5 percent, while male is noted 70.5 percent. In terms of education 8.2 percent having 10 years , 33.2 percent having 12 years, 30 percent having 14 years, 26.8 percent having 16 years, and 1.8 percent having 20 years of education.

<table>
<thead>
<tr>
<th>Demographic Variables</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>155</td>
<td>70.5 %</td>
</tr>
<tr>
<td>Female</td>
<td>65</td>
<td>29.5 %</td>
</tr>
<tr>
<td>Qualification</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 years</td>
<td>18</td>
<td>8.2 %</td>
</tr>
<tr>
<td>12 years</td>
<td>73</td>
<td>33.2 %</td>
</tr>
<tr>
<td>14 years</td>
<td>66</td>
<td>30 %</td>
</tr>
<tr>
<td>16 years</td>
<td>59</td>
<td>26.8 %</td>
</tr>
<tr>
<td>20 years</td>
<td>4</td>
<td>1.8 %</td>
</tr>
<tr>
<td>Income</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20,000–30,000</td>
<td>64</td>
<td>29.1 %</td>
</tr>
<tr>
<td>31,000–40,000</td>
<td>57</td>
<td>25.9 %</td>
</tr>
<tr>
<td>41,000–50,000</td>
<td>54</td>
<td>24.5 %</td>
</tr>
<tr>
<td>51,000–60,000</td>
<td>25</td>
<td>11.4 %</td>
</tr>
<tr>
<td>61,000—Above</td>
<td>20</td>
<td>9.1 %</td>
</tr>
</tbody>
</table>

At the same time, 29.1 percent respondents belongs to PKR.20,000 to PKR. 30,000 level of income group, 29.5 percent belong to the PKR.31,000 to PKR.40,000 group, 24.5%, belongs to the group of PKR.41,000 to PKR.50,000, 11.4 percent belongs to the group PKR. 51,000 to PKR.60,000 , and 9.1 percent belong to PKR.61,000 to above, group of income.

Table III provides information’s about correlations between independent variables. It indicates the mean of 220 respondents, who participated in the study, is slightly more than 33 years of age, having slightly more than 13 years
of education. The average of income is a little above PRK 20,000 per month while gender average is .70, that indicates higher ratio for men than women.

Standard deviation shows the variation from the mean value. Data in the table indicates that there is greater dispersion in age (7.977) from the mean years. All the remaining values indicate normal variation in the data.

Table. III Correlation between Independent Variables

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std Deviation</th>
<th>Age</th>
<th>Education</th>
<th>Income</th>
<th>Gender</th>
<th>AWR</th>
<th>INT</th>
<th>DES</th>
<th>ACT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>33.11</td>
<td>7.977</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>13.65</td>
<td>2.065</td>
<td>.272*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income</td>
<td>2.45</td>
<td>1.269</td>
<td>.603*</td>
<td>.395**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>.70</td>
<td>.475</td>
<td>.071</td>
<td>.066</td>
<td>.083</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AWR</td>
<td>3.253</td>
<td>.86952</td>
<td>-.019</td>
<td>-.077</td>
<td>-.051</td>
<td>-.051</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INT</td>
<td>2.9404</td>
<td>.61350</td>
<td>-.024</td>
<td>.083</td>
<td>.004</td>
<td>-.014</td>
<td>.378*</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DES</td>
<td>3.1873</td>
<td>.76774</td>
<td>-.040</td>
<td>-.043</td>
<td>-.007</td>
<td>-.007</td>
<td>.385*</td>
<td>.683*</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>ACT</td>
<td>3.5584</td>
<td>.75347</td>
<td>.005</td>
<td>-.018</td>
<td>.003</td>
<td>-.096</td>
<td>.253*</td>
<td>.065</td>
<td>.161*</td>
<td>1</td>
</tr>
</tbody>
</table>

**. p<0.01 significance levels (2-tailed).
AWR = Awareness, INT = Interest, DES = Desire, ACT = Action

The analysis of correlation matrix indicates that the age – income are strongly positively correlated (r = 0.603), while age – education correlation (r = .272), and age – gender (r = .071) correlation are also positive. Age is negatively correlated with independent variables, awareness (r = -.019), interest (r = -.024), desire (r = -.040), but positively correlated with action (r = .005). Likewise, education is strongly positively correlated with income level (r = .395), and positively correlated with gender (r = .066) and interest (r = .083), but negatively correlated with awareness (r = -.94), desire (r = -.43) and action (r = -.018). At the same time, income is positively correlated with gender (r = .083), interest (r = .004) and action (r = .003), but negatively correlated with awareness (r = -.51) and desire (r = -.007). Gender is negatively correlated with awareness (r = -.51), interest (r = -.014), desire (r = -.007) and action (r = -.96). Likewise, awareness is positively correlated with interest (r = .378), desire (r = .385) and action (r = .253). Interest is strongly positively correlated with the desire (r = .683) and also has a weak positive correlation with action (r = .065). At the same time, desire is positively correlated with action (r = .161). All the four independent variables (awareness, interest, desire and action) are positively correlated with each other.

Table IV provides the information about the log likelihood function of the model. The Initial Log Likelihood Function (-2 Log Likelihood) is the statistical measure and sometimes called the null model because it includes only constant value and is used as the baseline against the model where independent variables are assessed. The initial -2LL value is 292.577 on step 0 before the addition of independent variables in this model.

Table. IV Comparison of Log Likelihood model

<table>
<thead>
<tr>
<th></th>
<th>Baseline Model</th>
<th>Estimated Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>-2 log likelihood value</td>
<td>292.577</td>
<td>250.681</td>
</tr>
</tbody>
</table>

The addition of independent variables to the model reduces the initial log likelihood value that shows the good fit of the model. The -2 log likelihood value of baseline model is 292.577 and -2 log likelihood value of estimated model is 250.681. The decrease in -2 log likelihood value indicates the good fit of the model.

Table V provides the information about logistic regression output. Beta is the value of the logistic coefficient. According to the results of logistic regression, the odds of awareness being created by mobile marketing is 1,506 times greater as compared to email marketing channel. It can be inferred that customers seem to prefer mobile marketing, as it provides short information than the information provided by email. This preference may be because customers do not want to be overloaded with information and may be likely the cause of mobile marketing preference among customers. Secondly, customers seem to prefer mobile marketing because they may keep their cell phones turned on all the time and may not regularly check their email; or their mail may go to spam.
Likewise, Mobile marketing creates the odds of interest 3.014 times greater than that created by email marketing. It can be inferred that customers seem to show interest in mobile marketing, as it provides the facility to participate in live shows\(^1\) and mutual discussion about required needs. This preference may be because customers want to listen to the marketers, which is easily comprehensible to customers instead of getting bored by reading lengthy advertisements. Secondly, it provides the opportunity to participate in quizzes and competitions via SMS. These quizzes are likely to increase consumer interest.

The results of logistic regression in the above table indicate that the odds of desire being created by mobile marketing is 0.836 times as compared to email marketing but however, this effect is statistically insignificant.

While, the odds of action (buying) being created by mobile marketing is 2.004 times greater as compared to email marketing channel. An inference can be made that customers seem to prefer mobile marketing, as it provides on time information about seasonal sale and facilitates customers in their choices where customers may take advantage of this special offer. This preference may be because customers want multiple choices while purchasing and may likely be the cause of mobile marketing preference among customers. Customers may forward SMS offers to their friends and relatives, where group purchase may be the reason of increase in sale.

**DISCUSSION**

This study examined the concept of AIDA model for assessment and comparison of two marketing channel (i.e mobile and email). In response to the suggestions of Ashcroft and Hoey, inspirations of Wood and Burhalter, of applying the concepts of AIDA model in online and social networking advertisings (Ashcroft & Hoey, 2001; Wood & Burhalter, 2013). Results of the study have important implications for marketing research and added to existing knowledge by identifying that AIDA model can be used in mobile and email marketing. Specifically, the study examined the effects of awareness, interest, desire and action on mobile and email marketing and identified that mobile marketing have significant effects on awareness, interest and action. Further, logistic regression gave satisfactory statistical results to make comparison of two marketing channels.

The managerial prospective of the study was to test whether AIDA model can be apply to mobile and email marketing. The results show that it can be used in mobile and email marketing to influence the customers’ attitude. Further, results show that according to AIDA model, mobile marketing has better impact as compared to email marketing. Our study is in line with the findings of Wood and Burhalter (2013) in terms of effectiveness of AIDA model, however, our study differs from that study as Wood and Burhalter (2013) tested one advertisement and one product category in twitter but our study tested multiple advertisements of different products through mobile and email. Further, Wood and Burhalter (2013) sample included only young students but the sample of this study included respondents of diverse ages.

**CONCLUSION**

The study analyzed and assessed the effectiveness of mobile and email marketing channels and identified the preferable one. The study used questionnaires based survey with a sample of 350 registered customers of Metro but only 220 participants provided information. Further, study used descriptive statistic and logistic regression for data analysis.

\(^{1}\) Live Programs on Metro TV channel invites customer to participate via SMS and calls.
According to the study results, most of the respondents answered that they have received promotional offers through mobile marketing channel. Out of the total participants, there were 70.5% men while 29.5% were women. The results of the logistic regression show that awareness, interest and action have significant effects on mobile marketing while the other independent variables desire, age, income, education and gender have insignificant effects on mobile marketing.

The results of logistic regression rejected the third hypothesis of the study, and accepted the remaining three hypotheses. With these results, we reached at the conclusion that mobile marketing channel created greater awareness, greater interest and greater purchase action as compared to email marketing channel.

The study is unique in nature. It is only one of its kind that applies AIDA model on mobile and email marketing channels for analysis and ads assessment. Results specify that according to AIDA model, mobile marketing channel is more effective as compared to email marketing channel. However, while interpreting results, it should be kept in mind that data used in this study are obtained from one mega store, therefore readers need to be cautious in generalizing results. To further enrich the analysis, we therefore recommend that future research should include research on other marketing channels including TV and print media. Further, our research was limited to consumer industry only; future research can include other sectors like pharmaceutical, education, and other services related sectors.

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