MOBILE MEDIA CONSUMPTION AND SOCIAL NORMS: AGE AND GENDER AS MODERATORS

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Abstract

Currently, Mobile phone is being claimed to be ‘third screen’ for marketers/ advertisers. Marketers are exceedingly engrossed in efficiently utilizing this innovative mobile media. However, some areas of mobile media consumption need systematic investigation. One such area is influence of social norms. This model based study investigates the impact of social norms on consumers’ intention of mobile media consumption, using linear regression analysis. Further, study examines the moderating effect of select demographic variables on relationship between social norms and intention, using General Linear Modeling Analysis. Findings suggest that social norms significantly influence intention of mobile media consumption and age is the demographic variable which moderates the above relationship. Study makes practical implication to marketers to maneuver social norm factor to improve acceptance & consumption of mobile media by consumers.

Key Words: Cell phone, Media, Mobile phone, Mobile Marketing, Social Norms,

INTRODUCTION

Mobile phone is promptly becoming a marketing media of interest (Mobile Marketing Association, 2011) and currently, it is claimed to be a third screen for marketing communication (Cuneo, 2005). Mobile media scores better than the traditional media/channels in terms of Reach, Cost, Retention (SMS marketing guide, 2003). Thus gradually marketers are giving place to innovative and interactive mobile media in their portfolio. With increasing penetration of mobile phone, the interest of marketers in the use of mobile phones as an advertising medium has increased significantly across the globe (Bauer et al. 2005). This advertising using mobile devices as medium or simply ‘mobile advertising’ could be defined as “the use of interactive wireless media such as mobile phones, personal digital assistants, wireless networking systems, GPS-based locators etc. to transmit advertising messages to consumers in form of time and location sensitive, personalized information with the overall goal to promote goods and services” (Parissa and Maria 2005). Mobile phone as advertising media has certain advantages over traditional media. For example, people carry their mobile with them everywhere thus mobile media ensures anytime, anywhere reach to consumers. And at a same time it is highly interactive medium as mobile users can have real time interaction with advertisers and other mobile users (Interactive, 2008). More over mobile media enjoys greater brand recall & higher response rate, as SMS medium is action oriented (Phelps, 2004). Thus mobile media has tremendous potential worldwide.
As far as Indian market is concerned, mobile penetration reached to 82.08% in Jan 2013 (TRAI, 2013) and further, lowering tariffs is providing marketers an innovative tool to promote and communicate their offerings (Reuters, 2009). Though, mobile media consumption still in its infancy in India, it can prove highly effective advertising tool. Despite the fact that marketers are looking for new media options, it is not much clear whether consumers are accepting mobile advertising in a positive sense (Shabelman, 2007; Bamoriya and Singh, 2011). That's why some areas of mobile media and its consumption need systematic investigation. Especially, the effect of social norms on acceptance and consumption of mobile media by mobile users is of major interest, as the nature and implications of this new medium are not yet understood fully. Social norms could be defined as the unwritten, accepted standards of behavior of a particular social group (McLeod, 2008). Complementing traditional media with mobile media could allow marketers to maximize campaign effectiveness through personalization, customization and making it time/place relevant (Frolick and Chen, 2004). So, if effect of social norms - that induce mobile users to accept the mobile advertising, can be measured then marketers can promote their offerings in much efficient and cost effective manner. Here the findings of this paper may help the marketers to maneuver social norms factor to improve acceptance and subsequent consumption of mobile media by mobile users as a reliable and valuable medium.

LITERATURE REVIEW

Social Norms & Role of Demographic Variables

Ajzen and Fishbein (1980) in their Theory of Reasoned Action (TRA) suggested that individuals consider and evaluate various social criteria concerning the behavior before actually performing it. They further suggested that one’s intention to engage in certain behavior is a function of three determinants: behavioral intentions, social influences to engage in the behavior, and perceived behavioral control. The causal order of the variables is as follows- Firstly, one’s attitude toward the act, social influences to perform the act, and perceptions of behavioral control will influence one’s behavioral intention to engage in the act. Secondly, behavioral intentions influence actual behavior. Thus they provide some important direction for the effect of social norms on intentions and behavior of an individual. In the same line, Malhotra and Galletta (1999) suggested that social norms are the key determinants of intention to use a system or performing a particular behavior. Thus social norms set general accepted standards of behavior in a particular social group. Further, Kelman (1958) suggested that social norm has two different forms: Compliance- when an individual accepts influence because he hopes to achieve a favorable reaction from another person or group (social approval/disapproval from others). Identification- when an individual accepts influence because he wants to establish or maintain a satisfying self defining relationship with others. He further stated that social influences play an important role in determining the acceptance and usage behavior of adopters of new information/technology. Henkel and Block (2008) suggested that for the diffusion of new technology/services, two rather different concepts are there. First, the more users a technology/service have, the more attractive the technology/service becomes for potential further adopters. They called this the installed-base effect, since it is caused by the attractiveness of the current user base to outsiders. Second, growth of the installed base is beneficial also to those consumers who are already part of it. They thus have an incentive to support its growth by exerting influence on not-yet adopters. They referred to this second mechanism as the social influence. Similarly,
Bearden and Etzel (2002) reported a greater role for appeals based on social influence in stimulating demand. In their study, they found significant degree of social influence on product purchase and consumption decisions of an individual. Shin (2003) stated that peers and reference groups can be very much influential in shaping technology acceptance and usage behavior. He studied the influence of social norms in SMS advertising and found that by forwarding messages to their friends, recipients of SMS ads create strong social influence. Further, Berkowitz, A. (2004) in his work on social norm theory, proposed that demographic variables has strong role in intention to comply with social norms. Steinberg and Monahan (2008) studied the impact of demographic variables on extent of social influence, through a data of samples comprising around 3,600 males and females between the ages of 10 and 30. They reported that across all demographic groups, impact of social influences declined linearly between ages 14 and 18. Thus they concluded a moderating effect of age on social influence. Similarly, Marlon (2011) studied role of demographic variables viz. age, gender, race on extent of social influence and tendency to comply with social norms. Findings suggested that age is most critical factor in extent of social influence towards particular behavior, followed by gender. Rest of the demographic variables had no significant role. Taylor and Wang (1996) explored the role of gender on impact of social influence and peer orientation, among school students. They found that gender has significant moderation on the impact of social influence on a particular behavior.

**Mobile Media Acceptance and Consumption**

Fishbein and Ajzen (1975), Davis (1989) posited that individual’s behavior is driven by behavioral intentions where behavioral intentions are the function of an individual's attitude toward that particular behavior. Thus they anonymously theorized behavioral intention as the precursor of individual’s behavior. Barnes (2002) stated that mobile phone can help build the relationship between brand and the consumer, providing direct line of two way communication and offering businesses a truly economic, effective and reliable way to communicate with customers. He suggested that here key to success is in developing relationship with consumers so as to lead easy acceptance & consumption of this new media. Davis (1989) stated that acceptance and subsequent usages of any new technology is forerun by intentions. In other terms, intentions are the precursor of actual behavior. Mehta (2000); Yang (2007); Wu and Wang (2004) supported the above relationship in context of mobile marketing, suggesting that consumers’ intention to accept mobile marketing communication positively influenced on their behavioral intentions towards mobile media.

**HYPOTHESES & CONCEPTUAL MODEL**

Social norms were found to be influencing individual’s intention to accept use new technology & technology enabled services. So it is logical to study impact of social norms on individual’s intention of mobile media consumption.

H1: Social norms has significant positive impact on intentions of mobile media consumption.

Further, age and gender were the two demographic variables found to have role in the relationship between social norms and intentions towards particular behavior.

H2: Age moderates the relationship between social norms and intention of mobile media consumption.
H3: Gender moderates the relationship between social norms and intention of mobile media consumption.

Figure 1: Conceptual Model

RESEARCH METHODOLOGY

Keeping in scope of the research and proposed hypotheses, a cross-sectional descriptive research design was adopted.

Sampling & data collection:

Purposive sampling was adopted for primary data collection at Devi Ahilya University-Indore, India involving students and staff. A structured questionnaire was administered to 324 individuals, out of which 205 responded thus generating a response rate of 63.27%. Section I of questionnaire had eight items measuring compliance with social norms on five point likert scale (1= Strongly agree, 5= Strongly disagree) and one question to measure intention to consume mobile media on 7-point semantic differential scale (1= positive intention, 7= negative intention). Section II of questionnaire had questions related to demographic information, on nominal scales.

Data Cleaning

Data collected was subject to cleaning using missing value analysis and outlier detection using SPSS 15. Missing values were intended to be deleted casewise, no missing values were found. For outlier detection Z-scores were estimated. 8 scores, in 4 cases were more than 3 standard deviations beyond the mean (|z| > 3 indicating outliers; Kline, 2005). Hence, those 4 cases were deleted from data set, leading to effective data size available for further analysis to 316.

Checking statistical assumptions

Cleaned data was first tested for statistical assumptions viz. data normality, multi collinearity, reliability and validity. Data normality was ensured using skewness and kurtosis indices. Data was regarded as normal as the skew index ranged from -0.68 to 1.65 (value < |3|; Normality; Kline, 2005) and kurtosis index ranged from -2.77 to 4.51 (value < |10|; Normality; Kline, 2005).

For regression analysis to be applied, absence of multi collinearity was checked. Product moment correlation of items measuring the construct social norm suggested absence of multi collinerity, as all correlation coefficients were below cutoff value of 0.9.
Cronbach’s α of scale for social norm was found to be 0.881, suggesting reliability (α > or = 0.7 acceptable; de Vaus, 2002). For checking validity of scale for social norm, product moment correlation matrix was scanned. Correlation between all pairs of items was significant, thus convergent validity was ensured (Kline, 2005)

**ANALYSIS & FINDINGS**

**Regression Analysis: Estimating Linear Effect**

To analyze linear effect in proposed model (See Figure 1), linear regression analysis was done. Here, social norms (composite score of 8 items) was taken was predictor and intention of mobile media consumption was taken as dependent variable. Standardized regression coefficient (0.477; p < .001) was significant at .001 level (Table 1). It implied that when tendency to comply with social norms goes up by 1 standard deviation, intention of mobile media consumption goes up by 0.477 standard deviations. Hence proposed hypothesis H1 i.e. “Social norms has significant positive impact on intentions of mobile media consumption” is accepted.

**Table 1: Regression Analysis Summary**

<table>
<thead>
<tr>
<th>Model</th>
<th>Standardized Coefficient</th>
<th>Standard Error</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predictor: Social norms</td>
<td>.477</td>
<td>.106</td>
<td>.000*</td>
</tr>
</tbody>
</table>

Note: *Significant at .001

**General Linear Model (GLM) Analysis: Estimating Moderating Effects**

To estimate moderating effects of age and gender on the relationship between social norms and intention of mobile media consumption General Linear Model (GLM) analysis was performed, separately for each moderator. Here, intention (i) was dependent variable while social norms (composite scores) was taken as fixed factor, denoted as (s). Model was balanced as each category of hypothesized moderating variables had equal number of cases. First, moderating variable age (a) was selected as covariate and estimated for effect of social norms (s), age (a) and interaction (s*a) on intention (i). Subsequently, same procedure was performed for reaming moderating variables i.e. gender (g). Findings (See Table 2) suggested that in case of influence on intention, interactions between social norms & age (.132, p < .01; GLM Analysis 1) is significant. Hence, hypothesis H2 that “Age moderates the relationship between social norms and intention of mobile media consumption” is accepted. But interaction between social norms & gender (.441, p=.411; GLM Analysis 2) was not significant. Hence, hypothesis H3 that “Gender moderates the relationship between social norms and intention of mobile media consumption” is rejected.
Table 3: GLM Analysis Summary for Moderating Effects

<table>
<thead>
<tr>
<th>Effect</th>
<th>Mean_Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>GLM_Analysis 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social norms (s)</td>
<td>.815</td>
<td>.612</td>
<td>.007**</td>
</tr>
<tr>
<td>Age (a)</td>
<td>.581</td>
<td>.402</td>
<td>.01*</td>
</tr>
<tr>
<td>Interaction (s*a)</td>
<td>.132</td>
<td>.088</td>
<td>.002**</td>
</tr>
<tr>
<td>GLM_Analysis 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social norms (s)</td>
<td>.865</td>
<td>.598</td>
<td>.02*</td>
</tr>
<tr>
<td>Gender (g)</td>
<td>1.109</td>
<td>.903</td>
<td>.091 (n.s.)</td>
</tr>
<tr>
<td>Interaction (s*g)</td>
<td>.441</td>
<td>.302</td>
<td>.411 (n.s.)</td>
</tr>
</tbody>
</table>

Note: *Significant at .05, **Significant at .01, (n.s.) not significant

Finally, on combining the findings of linear regression analysis and GLM analysis following model was emerged:

![Figure 2: Accepted Model](image)

DISCUSSION & CONCLUSION

With the increasing market penetration of mobile phones, the marketers are becoming more and more interested in using mobile media as a tool of advertising. But, nature of this innovative media is not fully understood especially in domain of social norms, due to limited research. Findings of this study helps in demystifying this phenomenon as it suggests the significant impact of social norms on individual’s intention to consumer mobile media. Further, this study suggests that above relationship of social norms and intentions is moderated by age. But, there is no difference between males and females related to impact of social norms on mobile media consumption. Gender is not a significant moderating effect. These findings may help marketers to maneuver social norms factor to improve acceptance and consumption of mobile media, keeping in mind role of demographic variables. Study has certain limitations. Study analyzed the intention (of mobile media consumption) as proxy variable for actual behavior. Here, use of as a measure for actual behavior might have led to loss of some explanatory power of the proposed model. Further, due to purposive sampling method used; sample may not be fully representative of population. This limits the generalizability of findings of the study.
REFERENCES