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A Pilot Exploration On Consumers’ Attitudes Towards Mobile Advertising in Sri Lanka

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Abstract: Mobile media has been rapidly evolving in the market with novel technological features. It has captured the advertising field in a revolutionary manner. Unlike in developed countries mobile media is less popular in developing countries. This study is designed to explore the Sri Lankan consumers’ attitudes towards mobile advertising. The author presents a model of the relationship between demographics and experience with internet advertisements and their attitudes towards mobile advertising. Self-administrative questionnaire was applied to collect data and 413 valid responses were gathered. The data analysis results show that, i) Demographics (age, family income) and ii) Experience with internet ads are predictors of attitude towards mobile advertising. Experience with internet ads has significant moderating effect on attitude on m-ads.

Key words: Mobile advertising1, Demographics2, experience with Inter-net advertisements3, Attitudes towards mobile ads4

1. INTRODUCTION

The mobile advertising market is rapidly growing along with the spread of smartphone demand in 3G/4G broadband technology advances (Kim & Lee, 2014). Mobile advertising has become an extremely promising market for advertising managers. Managers are facing difficulties to reach fragmented consumers with traditional medias of advertising. Mobile devices are gradually evolving into a new, attractive media indirect communication with consumers (Leek & Christodoulides, 2009). Direct contacting of individuals allows advertisers to elicit an immediate and direct consumer response (Leek & Christodoulides, 2009). New business models for mobile marketing are turning the mobile phone into a marketer-exclusive platform (Friedrich et al., 2009).

The Mobile Marketing Association (MMA) defines mobile marketing as “the use of wireless media as an integrated content delivery and direct response vehicle within a cross media or standalone marketing communications program” (MMA, 2006). Increasingly, brand managers view mobile devices as an attractive platform from which they can interact with consumers through various forms of marketing communications, including customized, location-based promotions and television-style advertising (Gao et al., 2010).

As an emerging market, Sri Lanka is a potential market for mobile advertising for international brands and domestic advertising agents. However, few research studies are carried out to discover the consumers’ attitudes towards mobile advertising. This research attempts to explore demographical predictors of Sri Lankan consumers’ attitudes regarding mobile advertising. The authors proposed a relational model between demographics and attitudes of Sri Lankan consumers towards m-ads, with experience of inter-net ads as moderator. The findings will be helpful for ad managers in targeting audience and maximize the benefits from M-ads.

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2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

2.1 Consumers’ demographics and mobile media usage

1) Age

Youth and mobile media was an interest of many researchers since it is assumed and explored that youth is the mostly interested group about mobile usage. It is important to realize that the relationship is also fundamentally different to that of the user and the PC/internet (Dhaliwal, 2003). Mobile phone culture is particularly highly associated with young people, especially text messaging (Goggin, 2013). South African study done by Porter and all (2012) revealed that mobile phones promote young people’s inclusion in existing social networks and encourage the extension of social networks. Walsh and all (2009) discovered that belongingness motives were related to frequent mobile phone usage amongst young people. Leppaniemi and Karjaluoto (2008) interestingly found that consumers in the age category of 36-45 were most likely to send a SMS to a TV show or in response to advertisements.

Youth, adult youth and adult intention and behavior towards mobile advertising are different from each other. There is a difference between attitudes and behavior of youth and adults towards mobile advertising (Unal et al., 2011). Youth and adult youth are more positive towards M-ads (Unal et al., 2011) and are willing accept ads on their mobiles (Hanely et al., 2006). Though youth are more positive towards M-ads, irritating factor reduces the level of positive attitudes of youth (Unal et al., 2011), Choi et al. (2008), Vernali (2012), Kim & Han (2014), Xu et al. (2008), Liu (2012), Tsang et al. (2004), Parreno (2013), Xu (2006/2007), Chowdhury (2006), Truong & Simmons (2010), Park & Salvendy (2012), and Haq (2012)). However, M-ads are welcome among youth than adults. Thus, we have H1 as below.

\( H_1: \) Age is a predictor of attitude of consumers in Sri Lanka towards m-ads. Youth has more positive attitudes towards M-ads.

2) Gender

Gender differences are important in understanding consumer behavior in any market segment. Significant behavioral differences occur due to gender. Female and male clusters may behave totally different from each other when it comes to technological innovations. Although, Haverila (2011) concluded that female and male respondents conceptualize cell phone behavior quite similarly. Some of the studies concluded that females are more negative towards behavioral aspects of mobile phones. Females appear to be more concerned about the “negatives”, which include issues like being embarrassed when the phone is ringing in inappropriate times (Haverila, 2011). Nittala (2011) had focused on demographic factors (age, gender, education, family income) and found that gender accounts for most of the registering behavior. However, it was reported that females are more in the ‘not willing to register’ group (Nittala, 2011). Sometimes males do believe that the mobile phone is an essential component in their lives. Thus, they feel that they are attached to mobile phones and applications as well. The attachment is a significant factor which influences attitude towards mobile marketing for male youth consumers in United States and China while it is not for female youth consumers in either country (Gao et al., 2012). Further, it is apparent that males have frequent habit of using mobile phone more in their day-to-day lives. And males prefer using mobile talk more than females do (Haste, 2005).

Nevertheless, there are different findings from above about gender differences in attitude towards M-ads. Leppaniemi and Karjaluoto (2008) discovered that female participants are more active than male participants in responding to TV shows or in response to ads by sending SMS. And, Gao and all (2010) show that gender has no significant influences on user interactivity perception in mobile advertising. Thus, we conclude H2 as below.

\( H_2: \) There is a gender difference in attitudes of consumers in Sri Lanka towards m-ads. Female tend to be more positive towards M-ads than male.

3) Education
Beside frequently used demographic variables like age and gender, there are other consumer characteristics like family income and education, which appear to be predictors of consumer attitudes and behavior towards advertising. Though very fewer studies focused on these characteristics of consumers, consumer behavioral theories and models discuss them in detail. Indeed, Hawkins, Best and Coney (1998) model and Kotler and Armstrong (2009) Consumer Black Box model discuss that numerous external and internal factors influence the behavior. They discuss that education can change the consumer behavior.

Contradictory to the above theory, Gao and all (2010) showed that education has no significant influences on user interactivity perception in mobile advertising. Nittala(2014) had focused on demographic factors (age, gender, education, family income) in his research conducted about registering for incentivized mobile advertising.Furthermore, he (Nittala, 2014) explored that college student are more inspired by incentivized mobile advertising.

It was reported that less education leads to high positive attitudes towards advertising(Shavitt et al., 1998).In line with the above outcome, Ndung’u and others (2012) too concluded that low level of education is a significant factor in determining high level of new technology acceptance (usage of the inter-net, e-mail and mobile phones). Hence we observe that the level of education has an impact of level of positive attitude towards M-ads. Consequently, H3 was developed as follows.

$H_3$: Education level of consumers in Sri Lanka is a predictor of their attitudes towards m-ads. The more higher the education of consumers completed, the more negative the attitudes.

4) Family Income

Family income level of a consumer always influences his/her buying behavior. Indeed, Kotler and Armstrong (2009) identify that the economic level of the consumer does influence the behavior. Lots of research in advanced markets concluded that family income is a predictor of attitude towards-ads.Shavitt and all (1998) reported lower income people has higher attitude towards advertising. Other research found that consumers with higher income are less likely to like TV advertising (Alwitt&Ptabhaker, 1992).

However, some research findings in new technology adoption are inconsistent with the above. Ndung’uet. AI (2012) concluded that income has no significant effect on acceptance of inter-net, e-mail and mobile phones. Additionally, Gao(2010) revealed that there is no significant effect of family income on user’s interactivity perception in mobile advertising. Also, Leppaniemi and Karjaluoto (2008) showed no significance influence of income on consumers’ participation in SMS competitions and ordering mobile services. Hence, there is a need to test the role of family income on attitude towards M-ad in emerging markets. So, we propose H4.

$H_4$: Family income is a predictor of consumers’ attitudes towards m-ads in Sri Lanka. The more higher the family income, the more negative the attitudes.

5) Experience with inter-net advertisement

Hawkins and others (1998) identified that prior experience of the consumers can influence their future consumption behavior.But Gao (2010)revealed that previous experience has no significant influences on user interactivity perception in mobile advertising. Experience could be generated out of all kinds of behavior. Reciprocally, the experience shapes the behavior. Individuals who used to try novel things always gather experience to their lives. Novel things brought by technological advances are likely to be tested by such individuals. Thus, we deduce that people who have prior experience in consuming inter-net advertisements may have the same interest in mobile advertising also. In the current study direct impact and the moderator impact of experience with inter-net advertisements is proposed to test.

$H_5$: Consumers with higher experience with the inter-net advertisements will have more positive attitude towards m-ads than those with low experience with inter-net advertisements.
3. METHODOLOGY

Purposive sampling technique was used in a survey to collect data to test the above hypotheses. The subjects were filtered by the question item “Are you using a smartphone?”. 413 respondents were eligibly collected. The questionnaire is consisted of three parts. In part I four demographic factors are included. Six question items are used as measurements of Experience with Internet advertisements in part II. In part III, eight questions are included to measure attitudes towards mobile advertisements. 5 point likert scale is used.

4. RESULTS OF THE ANALYSIS

4.1 Profile of the samples

Age category 21-25 is the major category (36.5%) of the sample that uses smartphones. Next is the respondents fallen in to 26-30 age group (32.4%). There is an implication that smartphones are more popular among young people as accepted worldwide. Major component of the sample is comprised of male respondents, which is 52.9%. Undergraduate category takes the first place (39.6%) in education aspect of the sample.

4.2 Reliability of the measurements

Constructs of experience with internet advertisements and Attitude towards M-ads were examined for reliability. Alpha values (α) for each construct are .823 and .836 respectively. Every construct meets the rule of thumb (0.8).

4.3 Hypotheses test

1) Demographic variables and attitude towards m-ads

ANOVA analysis is carried out to test the relationship between demographic variables and attitude towards M-ads and differences among various groups. Table 2 shows the results produced by ANOVA.

ANOVA test results (see Table 2) show that age is a predictor of Sri Lankan consumers’ attitude towards m-ads. F value = 14.445 and significance (p) level = .000 (see Table 2) support us to accept the hypothesis no.1. Additionally, test results indicate that age group 21-25 has the most positive attitudes towards M-ads (mean = 2.9 and SD = .74, (see Table 2)). Subsequent is the age group 16-20 (mean = 2.7 and SD = .43) who has slightly lower but positive attitudes towards M-ads. The age fallen above 40 group has the least level (mean = 2.0 and SD = .80, (see Table 2)) of attitudes towards M-ads. The mean plot illustrates that level of positive attitude decreases when age increases. Therefore, it is concluded that H1 is supported by the results.

Results show that gender is a predictor of Sri Lankan consumers’ attitude towards m-ads. ANOVA test results indicate that there is a gender difference in attitude towards M-ads (F = 11.918, p = .001). Females (Mean = 2.7 and SD = .74) are more positive than males (Mean = 2.4 and SD = .72) attitudes towards M-ads is existed among females than males (Male group’s Mean = 2.4 and SD = .72). Thus, H2 is supported.

Education is the next demographics variable considered. ANOVA results (F = 12.725, p = .000) produce the proof to accept education as a predictor of attitude towards M-ads. Different mean values of each group indicate that there are differences in attitude among various educated groups. Mean plot shows that the relationship between education and attitude is U-shape with college (undergraduate) education reaches the peak of positive attitude (Mean = 2.9, SD = .76). The hypothesis 3 is supported.

Family income is also a predictor of attitude of Sri Lankan consumers towards M-ads (F = 9.058 and p = .000). Mean plot illustrates the nature of the relationship. The consumers with lower income level (>20,000) have the highest level of (Mean = 3.1 and SD = .62) positive attitude towards M-ads. Then, with the income increase, the attitude goes down and stable after a point. The result also shows that there is no difference in attitudes among the highest three groups. It implies that there is a threshold of attitude in terms of the family income. The hypothesis 4 is partially supported.
Table 2: ANOVA results of Demographics

<table>
<thead>
<tr>
<th>Demographic Characteristic</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>F value</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age 16-20</td>
<td>2.7</td>
<td>0.43</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender Male</td>
<td>2.4</td>
<td>0.72</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender Female</td>
<td>2.7</td>
<td>0.74</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age 21-25</td>
<td>2.9</td>
<td>0.74</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age 26-30</td>
<td>2.4</td>
<td>0.74</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age 31-40</td>
<td>2.4</td>
<td>0.59</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age 40 above</td>
<td>2.0</td>
<td>0.80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education GCE (O/L)</td>
<td>2.5</td>
<td>0.41</td>
<td>12.725</td>
<td>0.000</td>
</tr>
<tr>
<td>Education GCE (A/L)</td>
<td>2.4</td>
<td>0.67</td>
<td>12.725</td>
<td>0.000</td>
</tr>
<tr>
<td>Education Undergraduate</td>
<td>2.9</td>
<td>0.76</td>
<td>12.725</td>
<td>0.000</td>
</tr>
<tr>
<td>Education Graduate</td>
<td>2.2</td>
<td>0.59</td>
<td>12.725</td>
<td>0.000</td>
</tr>
<tr>
<td>Education Postgraduate</td>
<td>2.3</td>
<td>0.70</td>
<td>12.725</td>
<td>0.000</td>
</tr>
<tr>
<td>Education Professional</td>
<td>2.4</td>
<td>0.74</td>
<td>12.725</td>
<td>0.000</td>
</tr>
<tr>
<td>Family Income</td>
<td></td>
<td></td>
<td>11.918</td>
<td>0.001</td>
</tr>
</tbody>
</table>

2) Experience with inter-net ads and attitude towards m-ads

We tested the direct effect of experience with internet ads on attitude towards M-ads. Taking demographics as control variables, the results of regression model (shown in Table 3) show that experience with internet has a direct effect ($\beta = .292$, $P = .000$) on attitude towards M-ads. Consumers with higher experience with internet ads have more positive attitude towards M-ads than those with low experience with internet ads. Thus, hypothesis 5 is supported.

Table 3: Regression results of hypotheses testing

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Dependent Variable</th>
<th>Standardized $\beta$</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1</td>
<td>Exp. With Internet ads</td>
<td>Attitude towards M-ads</td>
<td>.292</td>
</tr>
<tr>
<td>Model 2</td>
<td>Exp*Age</td>
<td>Attitude towards M-ads</td>
<td>-.210</td>
</tr>
<tr>
<td></td>
<td>Exp*Gender</td>
<td>.284</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Exp*Edu</td>
<td>.172</td>
<td>.011</td>
</tr>
<tr>
<td></td>
<td>Exp*Income</td>
<td>-.114</td>
<td>.042</td>
</tr>
</tbody>
</table>

Further, we tested the moderation effect of experience with internet advertisements. The results of regression model 2 show that there is a moderating effect of experience with internet ads to demographic variables. Except family income, experience moderates the impact of age, gender and education on attitude towards M-ads (exp*age: $\beta = -.210$, $p = .003$, exp*gender: $\beta = .284$ and $p = .000$, exp*edu: $\beta = .172$, $p = .011$).
5. CONCLUSIONS AND DISCUSSION

We testified the role of demography on consumers’ attitude towards M-ads in Sri Lanka. Based on data analyses results H1, H2, H3, and H5 are supported. H4 is partially supported.

Consequently, it is confirmed that age is a predictor of attitudes towards mobile advertising in Sri Lanka. Youth has more positive attitudes towards M-ads than elders, with the 21-25 years old being the highest segment. The finding is parallel to most of the prior research. Mobile culture is highly associated with the younger generation (Goggin, 2013). Youth is the mostly interested group about mobile usage (Dhaliwal, 2003). Sending short messages is mostly popular among youth (Leppaniemi and Karjaluoto, 2008). Youth are willing to accept M-ads on their mobile (Hanely et al., 2006) and young people are encouraged to extend their social networks through mobile phones (Porter et al., 2012). Thus, age is one of the key determinants of attitude formulation. Attitudes could be changed in relation to the age of the consumer. Especially, technology orientation is caused by the age. Results show that when age increases the level of positive attitude decreases. This finding is parallel to the findings of Unal and others (2011). They discovered that there is a difference in attitudes between youth and adults (Unal et al., 2011). It is interesting that, the moderating effect of experience with internet ads on age consumers does not change the predictive role of age.

It is proved that gender is significant in influencing attitudes towards mobile advertising. The current study accounts for gender differences in attitudes of Sri Lankan consumers towards M-ads. Previous researches in advanced markets revealed that gender account for attitudes toward m-ads (Leppaniemi and Karjaluoto (2008), Haste (2005), Nittala (2014), Gao et al. (2012) and Haverila (2011)). The present outcome is only parallel to findings of Gao and others (2010). We found females are more positive than males towards m-ads in Sri Lanka. The moderation effect of experience on gender is significant. It refers that female consumers with higher experience are more positive to adopt M-ads than others. The findings are helpful for companies in targeting segmentation for their mobile communication strategy in the country as well as other emerging markets.

The survey confirmed that consumers with less education level have more positive attitude towards M-ads. This result is inline with other research findings as well. Shavitt and others (1998) concluded that less education leads to high positive attitudes towards advertising. And, Ndung’u and others (2012) too concluded that high level of education is a significant factor in determining high level of new technology acceptance (usage of the internet, e-mail and mobile phones).

Family income is proven as another predictor of Sri Lankan consumers’ attitude towards M-ads. As mobile devices (smartphones) is now expensive for large population in Sri Lanka, family income influences consumers becoming an owner of a mobile phone, especially a smartphone. Receiving ads in smartphone will cause the owner to pay for data services. Thus family income is converted to an influential factor of attitude towards m-ads. But the moderating effect of experience changes this predictive role. It reduces the significance of family income in influencing the attitude towards M-ads.

Combining the roles of age, gender and education, we can make a conclusion that income is less important than others in segmenting the consumers for m-ads in emerging markets. With the fast spread of smartphones in emerging markets, companies should pay more attention on 21-25 years old female college educated population when making decision of mobile marketing.

We found that consumers’ experience with internet ads plays a vital role in shaping attitudes towards M-ads. Individuals with high level of experience with inter-net ads would have a higher interest or attitude to adopt m-ads too. We further found that experience has a moderate role to demographics. This manner could be considered as a stimulus for an individual to try new forms of ad media. Receiving ads in the mobile phone may be an interesting phenomenon to the particular person.
6. MANAGERIAL IMPLICATIONS

The results of the study are matching with market segmentation theories. Demographic variables and geographic variables are the basic segmentation variables which a marketer could use to segment his market (Kotler & Amrstrong, 2009). Additionally, it has many implications for various decision makers. Marketers, advertisers, software developers, service providers, regulatory bodies and researchers would have topics to discuss about mobile advertising. Mobile advertising is important in green marketing perspective too, enable the research meaningful for public policy makers either.

The results show that smartphones are popular in Sri Lanka, especially among youngsters. But using mobiles as an advertising media is not popular in Sri Lanka in the same way in most technologically advanced countries like China, Korea, most European countries and USA. However, the study discloses that there are avenues for mobile advertising in Sri Lanka. Innovative marketers, advertisers, software developers and service providers can initiate mobile advertising with effective strategies. Youth cluster would be the ideal target market for the initiation. In order to promote advertisements in mobiles, incentive schemes could be introduced. Mobile advertisements could be coupled with mobile applications as well. Further, research studies could be extended to this area and explore the behavioral aspects related mobile advertising.

7. LIMITATIONS AND FUTURE RESEARCH

The current study was limited to a very basic research framework. Four basic demographic variables namely age, gender, education level and family income was considered discover the relationship with the attitude towards m-ads. Additionally, the construct, experience with internet advertisements was tested. The study was limited to such an uncomplicated structure since the study is the pioneering study in Sri Lankan context. The literature from other countries was the foundation of the current study. Decisive predictors of attitude towards m-ads were not considered in this study as they are not appropriate in Sri Lankan context. Eg: perceived usefulness, ease of use, informativeness, interactivity, entertaining. In Sri Lanka mobile advertising is not existed broadly to apply complicated theories like Technology Acceptance Model (TAM) (Yang, 2007; Zhang & Mao, 2008), Theory of Reasoned Action Model (Fishbein & Ajzen, 1995; Lee, Tsai & Jih, 2006; Lutz, MacKenzie & Belch, 1983; Tsang et al., 2004), Web Advertising Model (Choi & Rifon, 2002; Ducoffe, 1995; Wang & Sun, 2010). As far as sample is concerned, it was confined to consumers who use smartphones. Hence, the sampling framework was too limited.

Smartphone are fetching widely and then sampling framework could be broadened. Plenty of studies could be carried out to explore the behavioral aspects of m-ads. Enormous array of literature from developed countries and other developing countries could be considered and related to such studies. Perhaps, constructive studies and their outcomes would pave the path for m-ads to be widely mobilized and thereof further research needs will be emerged. Sri Lankan consumers’ behavioral characteristics, testing above mentioned theories related to m-ads, exploring determinants/predictors of m-ads’ acceptance, etc would be attractive research study areas in Sri Lankan context. Possibly, new theories would be emerged in the context of Sri Lanka related to m-ads.

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