Full Length Research Paper

Assessing the attitude towards mobile marketing among university students

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The study was initiated to assess the attitude towards mobile marketing among students of Bahir Dar University, Ethiopia. The objective of the study is to evaluate whether the university students have accepted Mobile/SMS advertising positively and to understand the issues students experienced and the thoughts they perceived from educational perspective considering different factors affecting their attitude towards Mobile/SMS advertising. Data were collected from 98 students using convenience sampling method. The major results of the study indicated students do not have a strong positive attitude towards mobile advertising and they believe that it has a negative factor on quality of education. The study recommended the mobile marketers to properly segment their customers in order to stop irrelevant messages being sent and ethio–telecom to start to apply permission-marketing in order to protect its customers from disturbance.

Key words: Mobile advertising, mobile marketing, permission marketing, Bahir Dar University.

INTRODUCTION

Technology developments have created new marketing communication channels or media such as email, SMS (Short Messaging Service) and MMS (Multimedia Messaging Service). These digital media are considered to potentially improve the possibilities to reach consumers by allowing personalization of the content and context of the message (Forrester Report, 2001). With the rise of more sophisticated mobile devices, namely smartphones, the new convergence to e-marketing has resulted in powerful consumers who now have their stores in their hands (Abrams, 2013). The mobile communication technologies have developed especially in the 2000s, and today, with the impact of social networks, they have become widespread. Portable technologies that enable communication from any point without any space limit led to both technological and sociological important changes (Yeni Medyada, 2015).

A survey by Statista (2019) shows that in the year 2019, the number of mobile phone users globally was forecasted to reach 4.68 billion. At the end of 2016, there were 420 million unique mobile subscribers in Sub-Saharan Africa, equivalent to a penetration rate of 43% (GSM Association, 2017). According to the report of GSM Association (2017), the region continues to grow faster.
than any other region in adopting and utilizing mobile phones. The total number of SIM connections in the region reached 731 million at the end of 2016, and will rise to nearly 1 billion by 2020. Four of the most populated markets in the region – DRC, Ethiopia, Nigeria and Tanzania – were estimated to account for nearly half the 115 million new subscribers in 2020.

Mobile marketing is a huge growth opportunity for local businesses. More and more people are carrying smartphones that have always-on internet connections, and they are using them to find local businesses when they are on the go. Mobile phones have influenced the way the market works and thinks. It is used as a tool for targeting, interacting and establishing relationships with the customers (Shabhu et al., 2016). Even though mobile phones are giving extra opportunities for businesses as an additional means of promotion, the issue of customer disturbance makes the necessity of permission marketing very vital. Regarding this, permission marketing, a term first coined by Godin (1999), is changing the way marketers communicate with customers. Permission marketing is an approach to selling goods and services in which a prospect explicitly agrees in advance to receive marketing information (Godin, 1999). It is a concept that believed to reduce (if applied) the dissatisfaction of telecom customers since it can protect the customers from receiving trash messages from unknown/unwanted sources.

In many countries, mobile marketing is subject to government regulation, which demands prior permission from the customer before a mobile marketing message can be sent (Barnes and Scornavacca, 2004; Barwise and Strong, 2002; Leppäniemi and Karjaluoto, 2005). However, there is no system yet in Ethiopia that protects the rights of mobile subscribers not to be disturbed.

**Statement of the problem**

There are more than six billion users of cell phones worldwide. The need for people to connect with others frequently is apparent in our society. People use mobile phones everywhere and every time, to call and text friends, surf the web, visit social sites and attach themselves to their communication devices at all times. As the use of mobile phones has proliferated in academic settings in recent years, new challenges are faced by institutions of higher education and their faculties (Uğur and Tuğba, 2015).

The communication and information age of people has advanced tremendously in work stations, schools and colleges and all over the place through the use of digital devices such as iPhones, iPods, iPads and laptops which has highly motivated the young students to explore their potential in the universal market place and thereby increasing the demand of technology (Joseph, 2012). It is clear that many customers have their cell phones with them all the time, frequently as their primary means of communication with the rest of world. Many people even report that they would feel get lost without their cell phones and find it hard to imagine life without a cell phone (Krum, 2010). So, it is not surprising that mobile marketing develops and is definitely on the rise.

In many developing countries, more people have access to mobile phones than to older technologies like telephone landlines, newspapers, and radio (Aker, 2011).

Donga (2017) reported that 45 million users of mobile phone devices were recorded out of the estimated population size of 49.99 million people in South Africa. The prevalence of this technology as well as the capability to target marketing on an individual base has directed marketers to consider the adoption of mobile marketing strategy. Increasingly as suggested by Strauss (2016), marketing managers view mobile phone devices as a highly effective source to communicate with the market. However, their impact in disturbing the prospect customers was overlooked by previous researchers. There are two models of mobile advertising: push and pull models (Barnes, 2002). In the pull model, the marketer sends out the information related to the campaign that the consumers have already demanded. However, in the push model, the marketing person takes the initiative and texts the campaign messages directly to the consumers. In this latter type of campaigns SMS messages are heavily used. As it is the advertiser who initiates and sends out the ads without any demand, it would be required to get consumer’s prior permission to send the advertising text messages in a push model campaign (Bamba and Barnes, 2007). Otherwise, it has a potential to disturb the mobile subscribers.

According to the press conference given by Ethio – Telecom, Ethiopia’s telecom monopoly (2017), the number of mobile subscribers in Ethiopia reached 53 million people. The figure shows an 11 percent increase when compared to the previous fiscal year (2016). Even though it was reported that (Tadesse 2015) mobile phones are playing a very vital role for accessing market information in rural Ethiopia, recently, many short digit numbers are working on mobile marketing in Ethiopia, sending SMS to every number that is registered by ethio telecommunication. These numbers do not ask permission in advance from the customer to send the promotions. Due to this, many customers are found reporting complaints to the telecom monopoly being complaining on ethio telecom due to lack of measures for the disturbance. This study then aims to study the extent of disturbance perceived by students of Bahir Dar University and the attitude Bahir Dar university students have developed regarding mobile marketing. This helps to clearly know the impact that sending SMS messages without prior permission may bring to the sending company and the disturbance it brings to the telecom customers. The specific objectives of the study are: to evaluate whether the university students has accepted Mobile/SMS
advertising positively, to understand the issues students experienced and the thoughts they perceived from educational or learning perspective about Mobile/SMS advertising and to study the extent of the factors affecting Mobile/SMS advertising.

MATERIALS AND METHODS

Population, sample and sampling method

The target population of this study was all undergraduate students of Bahir Dar University; and a two-stage sampling method was used to collect data. Since the 11 faculties within this university are considered as internally heterogeneous and externally homogenous in terms of the data this survey was looking for, a two-stage sampling (Lohr, 2019) was used. Faculty of business and economics was purposively selected in the first stage, and then from all of the departments under the Faculty, 17 students were randomly selected from each of the 6 departments (Accounting and finance, Economics, Logistics and supply chain management, Management, Marketing management and Business management) leading to a sample size of n = 98 (4 students did not respond). The survey was pre-tested on 15 students and revised using their feedback. The answers from the pretest were checked and it was found that most of the respondents answer relatively the same answers. This was the reason to decide the number of samples to be restricted to only 17 per department. A total of 102 questionnaire forms were given to students at Bahir Dar University and finally a total of 98 completed and valid survey results were used for the analysis.

Theoretical framework

Mobile marketing

Leppaniemi et al. (2006) defined Mobile marketing as the use of the mobile medium as a means of marketing communications. Another definition by Dickinger et al. (2004) stated that mobile marketing is using interactive wireless media to provide customers with time and location sensitive, personalized information that promotes goods, services and ideas, thereby generating value for all stakeholders. It can be used to build customer engagement with a brand, through text messages, mobile advertising, permission based marketing, the delivery of mobile content, user-generated content, and mobile commerce (Watson et al., 2013). According to Zhang and Mao (2008) SMS technology allows marketers to send messages to consumers through their mobile handsets. It may also be used to reinforce other traditional media such as broadcast and print media (Zhang and Mao, 2008). However, the SMS approach has serious limitations as often consumers view text messages from businesses as: irritating (Muk, 2007; Samanta et al., 2009); and an invasion of privacy (Windham and Orton, 2002). On the other hand, other scholars (Zhang and Mao, 2008) argue that mobile marketing is an attractive way of getting customers since it has the highest response rate compared to other means of marketing communications.

Mobile marketing acceptance

According to Persaud and Azhar (2012), Mobile marketing acceptance is the power of one’s intention to carry out a specified behavior. It is expressed through respondents’ receptiveness as well as some intentions to take on activities such as reception of products or information linked to marketing as well as promotional offers on their mobile phone devices (Shankar and Malthouse, 2010). Perceived value affects acceptance and use of mobile technology, services and marketing and loyalty to mobile services and marketing. There are two models of mobile advertising: push and pull models (Barnes, 2002). In the pull model, the marketer sends out the information related to the campaign that the consumers have already demanded. However, in the push model, the marketing person takes the initiative and texts the campaign messages directly to the consumers. In the push type of campaigns, SMS messages are heavily used and perceived irritation was found to be the main sacrifice affecting mobile advertising use, especially for mobile push advertising (Carroll et al., 2007; Okazaki, 2007; Tsang et al., 2004). Monetary costs did not appear to dominate perceived value orientations in the mobile field, except for studies using samples dominated by students. Consumers’ negative perceptions of mobile push advertising could be changed if permission was obtained, or if service providers filter messages before sending to their audiences. After a critical review of previously conducted surveys in the same discipline, the potential factors that can affect the attitude towards mobile advertising considered in this study were: 1) Trust 2) Privacy 3) Risk, 4) Relevance, and 5) Shopping style.

RESULTS AND DISCUSSION

Descriptive analysis of the collected data was conducted on students’ attitude towards mobile advertising and issues students experienced, the thoughts they had regarding mobile advertising from learning perspective and the extent of the factors affecting their attitude towards mobile advertising. The analysis was conducted using SPSS (version 25).

Demographic characteristics of sampled students

Among the sampled students 34.7% were females. Regarding the sampled students age, 37.8% of them are below 23 years and the rest 62.2% found between the range of 23 and 29 years. The demographic results are in line with a report by GSM Association (2017) which stated that women in Sub-Saharan Africa were 17% less likely than men to own a mobile phone in 2016, with mobile uptake by females remaining below 40% in the region. In addition there is a slight difference with the result regarding age of mobile phone subscribers by which GSMA (2017) stated that less than a fifth of under-16 year-olds (who account for more than 40% of the population in most countries in the region) have a mobile subscription.

Frequency of receiving mobile marketing messages

As Figure 1 reveals, more than half of the respondents (65.3%) receive on average 2-4 SMS (usually marketing messages) via their mobiles per day. The second majority which account for about 18.4% of the respondents receive only one marketing message per day. 2% of the respondents answered that they get more
than 5 marketing messages per day on their mobile phone and the smaller percentage of the respondents was found to get more than 5 marketing messages per day on their mobile phone (7.1%). The result is the same with a study by Donga and Zindiye (2018) which stated that majority of South African students receive on average 2-4 marketing messages through their phone daily. But there is no clear reason given from Ethio-telecom why the number of mobile notifications being sent to the customers varies since there is no other telecom service provider in the country.

Students’ response to mobile marketing messages

The students were asked what they usually do when they receive a mobile marketing notification and majority of the respondents (37.8%) answered that they ignore the notification completely and the second largest proportion of the respondents (33.7%) answered that they read it after accumulating too many notifications. 24.5% of the sampled students read the marketing notifications occasionally and the rest 4.1% read it right away. The result of the study is different with the Enpocket studies (2002a, b; 2003) which found that consumers read 94 percent of marketing messages sent to their mobile phones. It is important to point that all customers in the enpocket studies had given the permission to receive third party marketing but none of the students of Bahir Dar University had given permission for receiving of their SMS. It is well known among marketers that asking for a customer’s permission is better and easier than asking for forgiveness (Bayne, 2002). In the wireless world, there is evidence to suggest that customers do not want to be interrupted - unless they ask to be interrupted (Newell et al., 2001) (Table 1).

Preferred place to receive mobile marketing notifications

Kannan et al. (2001) stated that an individual’s behavior and receptiveness to advertisement is likely to be influenced by their location, time of day, day of week, week of year, and so on. They added Individuals may have a routine that takes them to certain places at certain times, which may be pertinent for mobile marketing. If so, marketers can pinpoint location and attempt to provide content at the right time and point of need, which may, e.g., influence impulse purchases. Based on this context the sampled students stated their preferred places they would like to receive mobile marketing notifications and most of the respondents (58.2%) preferred to get mobile marketing notifications while they are at their dormitory since the extent to be disturbed is lesser than when they are at library or at class. 32.7% of the respondents do not want to receive mobile marketing notifications at all and the rest respondents prefer to get these notifications while they are at class (8.2%) and at library (1.0%) (Table 2).

Student’s attitude towards mobile advertising

Spaid and Flint (2014) defined attitude as an individual positive or negative feeling towards a specific behavior. Attitudes and consumers’ perception are believed to be the main determinants that influence the use of smart phones as a shopping tool (Holmes et al., 2014; Lu and Su, 2009; Lu et al., 2003). Based on these bases, students were asked to rate their attitude towards mobile advertising and the result shows that they have to some small extent positive attitude (mean 2.72) towards mobile advertising. The result shows that the reason they do not
Table 1. Response of students for mobile marketing notifications.

| Response                           | Frequency | Percent |
|------------------------------------|-----------|---------|
| Ignore it completely               | 37        | 37.8    |
| Read it occasionally               | 24        | 24.5    |
| Read it after accumulating too many| 33        | 33.7    |
| Read it right away                 | 4         | 4.1     |
| Total                              | 98        | 100.0   |

Source: Field Survey Data (May 2019) (SPSS Output).

Table 2. Preferred place to receive mobile marketing notifications.

| Preferred place                                      | Frequency | Percent |
|------------------------------------------------------|-----------|---------|
| At Library                                           | 1         | 1.0     |
| At Dormitory                                         | 57        | 58.2    |
| At Class                                             | 8         | 8.2     |
| I do not want to receive mobile ads at all           | 32        | 32.7    |
| Total                                                | 98        | 100.0   |

Source: Field Survey Data (May 2019) (SPSS Output).

Table 3. Attitude of students towards mobile marketing notifications (Ads).

| Parameter                          | Strongly like (5) | Like | Neutral | Dislike | Strongly dislike (1) | Mean |
|------------------------------------|-------------------|------|---------|---------|----------------------|------|
|                                    | F          | P    | F   | F       | p       | f        | p       | F    | p    |          |      |
| Attitude towards mobile Ad        | 6         | 6.1  | 32  | 32.7    | 12      | 12.2     | 25      | 25.5 | 23   | 23.5     | 2.72 |

Source: Field Survey Data (May 2019) (SPSS Output).

develop a positive attitude is because of the difference between their purchase intentions and the offers made by the mobile marketers. The result is in line with a study by Haghirian and Inoue (2007) investigated in Japanese consumers’ attitude towards advertisement in mobile device and found out credibility of information have the greatest impact in Japanese attitude (Table 3).

Choosing the kind of advertising based on customer needs and choosing the timing for the advertising has their own impacts on changing the students’ attitude towards mobile marketing. The respondents stated that their attitude towards mobile advertising would change in to positive if they had the possibility to choose the kind of ad they receive (mean 3.99) and if they had the possibility to choose the timing they receive the mobile ad (mean 3.78). the result is consistent with a study by Holmes et al. (2014) that stated consumers perceive their smart phones as personal and may consider it an intrusion if they are bombarded with commercials or advertising all the time. However, the respondents (mean 3.33) agree that advertising through SMS has negative impact on quality of education. Regarding the impact of mobile marketing on quality of education, there are different results from studies conducted before. Katz (2005) reported on uses of the technology for tutoring, accessing Internet resources, and connecting students, instructors, and parents in efforts to coordinate school-related activities. On the other hand, others have noted the potential threats of mobile marketing on quality of education. A study conducted by Tindell and Bohlender (2010) which is similar to the results of this study noted that texting creates a distraction to those sitting nearby (Table 4).

Factors affecting attitude of students towards mobile marketing

Trust

Factors like company reputation, consumer-sided trust, and data protection seals can create confidence and attenuate the negative impact of privacy concerns (Xie et al., 2006). The respondents stated their attitude on different
variables that shows the necessity of permission based mobile marketing. Regarding the trust they have on mobile marketers the respondents stated they would feel more comfortable about mobile marketing if they knew the marketer (mean 3.74) and they do not believe that mobile marketing service providers are open and receptive to their needs (mean 2.36); however, they believe that the mobile marketers use their personal data only for the purpose they promised to provide (mean 3.23). The result of the study is consistent with Martin et al. (2017) which stated that Consumers with strong privacy concerns have a general negative attitude to all forms of personalized communication another research by Zhang and Mao (2008) stated that Trust increases behavioral intention in accepting SMS ads directly and indirectly in order of increase usefulness of messages which contains advertisement (Table 5).

Privacy

According to Newell and Lemon (2001), mobile phone is a more personal environment than a mailbox or an e-mail inbox, and an undesired message has a very negative impact on the consumer. Barnes and Scornavacca (2004) added that as mobile marketing has a more invasive nature than any other media, a lot of attention must be given to permission issues in order to make the mobile marketing experience pleasant to the users and to protect their privacy. The information received must be of high value to gain the user’s permission. It must produce a win-win situation between user and advertiser. In relation to this, the respondents strongly believe that mobile marketing which is not permission-based is a threat to their privacy. They strongly agree that (mean 4.12) the mobile marketing service providers must have the customers permission prior to sending messages. Moreover, the students do not agree that they are protected by laws related to data privacy (mean 2.53) and they believe that their right of not being irritated by mobile marketers is violated. The irritation is because they believe that contents in mobile marketing are often annoying (mean 3.80) and it disturbs them (mean 3.58). The information obtained from Ethio-telecom, the only telecom service provider in Ethiopia also show that there is no law in practice that prevent the customers from being disturbed and irritated by unwanted and unsubscribed mobile marketing service providers. Marketing on the wireless medium can be categorized into two basic types: push and pull. In simple words push means sending messages without permission and pull is with permission. Currently the Ethiopian mobile market service providers are massively utilizing push strategy (Table 6).

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**Table 4.** Attitude of students regarding impact of mobile Ads on education quality.

| Variables | SA (5) | A | N | D | SD(1) | Mean |
|-----------|--------|---|---|---|-------|------|
| I should choose the kind of Ad | 23 | 23.5 | 57 | 58.1 | 18 | 18.1 | - | - | 2 | 2.0 | 3.99 |
| I should choose the timing | 24 | 24.5 | 44 | 44.9 | 15 | 15.3 | 14 | 14.3 | 1 | 1.0 | 3.78 |
| It has negative impact on education quality | 12 | 12.2 | 46 | 46.9 | 11 | 11.2 | 20 | 20.4 | 9 | 9.2 | 3.33 |

Source: Field Survey Data (May 2019) (SPSS Output).

**Table 5.** Effect of Trust on Attitude towards Mobile marketing.

| TRUST | I would feel more comfortable about mobile marketing if I knew the marketer | Mobile marketing service providers are open and receptive to customer needs | I believe that marketers would use my data only for the purpose that I have approved |
|-------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|
|        | Frequency | Percent | Frequency | Percent | Frequency | Percent | Frequency | Percent |
| SA(5)  | 29        | 29.6    | 5         | 5.1     | 3         | 3.1     |
| A      | 32        | 32.7    | 17        | 17.3    | 43        | 43.9    |
| N      | 22        | 22.4    | 16        | 16.3    | 30        | 30.6    |
| D      | 13        | 13.2    | 30        | 30.6    | 18        | 18.4    |
| SD(1)  | 2         | 2       | 30        | 30.6    | 4         | 4.1     |
| Total  | 98        | 100     | 98        | 100     | 98        | 100     |

Source: Field Survey Data (May 2019) (SPSS Output).

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Table 6. Effect of Privacy on Attitude towards Mobile marketing.

| PRIVACY | My Permission should be obtained prior to receiving mobile ads | I believe that consumers are protected by laws related to data privacy | Contents in mobile advertising are often annoying | Mobile advertising disturbs me |
|---------|---------------------------------------------------------------|---------------------------------------------------------------|-------------------------------------------------|-------------------------------|
|         | Frequency | Percent | Frequency | Percent | Frequency | Percent | Frequency | Percent | Frequency | Percent |
| SA      | 9         | 9.8     | 2         | 2.0     | 34        | 34.7    | 28        | 28.6    |
| A       | 41        | 41.8    | 15        | 15.3    | 27        | 27.6    | 32        | 32.7    |
| N       | 11        | 11.2    | 36        | 36.7    | 24        | 24.5    | 15        | 15.3    |
| D       | 5         | 5.1     | 25        | 25.5    | 9         | 9.2     | 15        | 15.3    |
| SD      | 2         | 2.0     | 20        | 20.4    | 4         | 4.1     | 8         | 8.2     |
| Total   | 98        | 100     | 98        | 100     | 98        | 100     | 98        | 100     |

Mean: 4.12 2.53 3.80 3.58

Source: Field Survey Data (May 2019) (SPSS Output).

Table 7. Effect of Risk on Attitude towards Mobile marketing.

| Risk                  | I do not want to share my personal information to online entities | I am much willing to take part in promotions as well as mobile marketing offers | When a financial error occurs, I worry that I cannot get compensation from mobile marketers |
|-----------------------|-----------------------------------------------------------------|--------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
|                       | Frequency | Percent | Frequency | Percent | Frequency | Percent | Frequency | Percent |
| SA                    | 7         | 7.1     | 4         | 4.1     | 27        | 27.6    | 33        | 33.7    |
| A                     | 32        | 32.7    | 42        | 42.9    | 33        | 33.7    | 19        | 19.4    |
| N                     | 22        | 22.4    | 18        | 18.4    | 16        | 16.3    | 19        | 19.4    |
| D                     | 27        | 27.6    | 31        | 31.6    | 16        | 16.3    | 16        | 16.3    |
| SD                    | 10        | 10.2    | 3         | 3.1     | 3         | 3.1     | 3         | 3.1     |
| Total                 | 98        | 100     | 98        | 100     | 98        | 100     | 98        | 100     |

Mean: 2.99 3.13 3.66

Source: Field Survey Data (May 2019) (SPSS Output).

Risk

Informational and financial risks were other factors found to be important for the student customers to have either positive or negative attitude towards mobile marketing. The respondents of the study stated that to some extent (mean 2.99) they worry when sharing their personal information to online entities even though they agree that (mean 3.13) they are willing to take part in promotions as well as mobile marketing offers. On the other hand, when a financial error occurs, they believe that (mean 3.66) they cannot get compensation from mobile marketers. The result is in line with various researches conducted regarding risk and information sharing decision in both the (interactive) marketing and information systems literature. Smith et al. (2011) present an interdisciplinary review and concentrate on the so-called privacy calculus, which constitutes a trade-off analysis of risk and benefits of sharing personal information with others. The main costs involved here are the costs of a loss of privacy. Most previous studies thus report a negative impact of privacy concerns on consumers’ willingness to share personal information (Son and Kim, 2008) (Table 7).

Relevance

Krishnamurthy (2001) stated that the higher the message relevance, the lower the impact of monetary benefit on consumers’ interest in the permission marketing program and the study finally suggests, the consumer benefit of relevancy and benefit of the permission marketing message should exceed the cost of receiving, comprehending and responding to permission marketing initiatives. The respondents in this study strongly believe that (mean 3.99) mobile marketing messages received on their phone are annoying even though they agree that (mean 3.01) they see a benefit in receiving marketing messages and promotions on their mobile phone. However, it is less that (mean 2.70) they find the mobile marketing messages relevant to their needs. It was because the messages sent to the students were not
relevant to their academic activities and purchase intentions which create the feelings of being annoyed (Table 8).

**Shopping style**

Shopping style was one of the factors considered affecting the students’ attitude towards mobile advertising. The respondents agree that (mean 3.53) mobile marketing does not fit with their idea of shopping. The result is in line with an article by eMarketer (2016) that states nearly 30% were less likely to purchase a product after having received a marketing ad via mobile phones. The students’ reactions to mobile marketing show just how “personal” students perceive their mobile phones to be and how much more innovative marketers need to be to engage this demographic. Regarding time, the mobile marketing messages has little effect on reducing the time it takes to search for products/services (mean 2.81) and the same little effect on helping the students to make better shopping decisions (mean 2.80). The results imply that the mobile ads being sent to the students do not fit with their idea of shopping and therefore does not reduce the time it takes to purchase the desired products/services (Table 9).

**Econometric analysis**

As can be observed from the econometric result in Table 10, out of hypothesized explanatory variables, three variables were found to determine the acceptance of mobile marketing among university students. These are Privacy, Risk and Relevance of the messages sent to the students. Therefore, the regression equation can be stated as:

\[ Y = \beta X + U \]

where

\[ Y = \text{Acceptance of mobile marketing} \]

\[ \beta = 1.11 + 0.173(\text{Privacy}) + 0.506(\text{Relevance}) - 0.168(\text{Risk}) + \text{disturbance term}. \]

From the significant variables, risk shows an inverse relationship with acceptance of mobile marketing among students while relevance shows a positive relationship with acceptance of mobile marketing among students.

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**Table 8. Effect of Relevance on Attitude towards Mobile marketing.**

| Relevance | Mobile marketing messages received on my phone annoy me | I see a benefit in receiving marketing messages and promotions on my mobile phone | I find mobile marketing messages relevant to my needs |
|-----------|--------------------------------------------------------|----------------------------------------------------------------------------------|--------------------------------------------------------|
| Frequency | Percent                                               | Frequency | Percent                                      | Frequency | Percent                                      |
| SA        | 32                                                    | 32.7      | 12                                              | 12.2      | 8                                              | 8.2                                      |
| A         | 39                                                    | 39.8      | 35                                              | 35.7      | 21                                             | 21.4                                     |
| N         | 22                                                    | 22.4      | 10                                              | 10.2      | 16                                             | 16.3                                     |
| D         | 4                                                     | 4.1       | 24                                              | 24.5      | 40                                             | 40.8                                     |
| SD        | 1                                                     | 1.0       | 17                                              | 17.3      | 13                                             | 13.3                                     |
| Total     | 98                                                    | 100       | 98                                              | 100       | 98                                             | 100                                      |
| Mean      | 3.99                                                  | 3.01      | 2.70                                            |           |                                                |                                          |

Source: Field Survey Data (May 2019) (SPSS Output).

**Table 9. Effect of Shopping Style on Attitude towards Mobile marketing.**

| Shopping Style | Mobile marketing does not fit with my idea of shopping | Mobile messages received on my mobile phone help to reduce the time it takes to search for products/services | Marketing received on my mobile phone help me to make better shopping decisions |
|----------------|--------------------------------------------------------|----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| Frequency      | Percent                                               | Frequency | Percent                                      | Frequency | Percent                                      | Frequency | Percent                                      |
| SA             | 14                                                    | 14.3      | 6                                               | 6.1       | 4                                            | 4.1                                      |
| A              | 46                                                    | 46.9      | 15                                              | 15.3      | 26                                           | 26.5                                     |
| N              | 21                                                    | 21.4      | 35                                              | 35.7      | 29                                           | 29.6                                     |
| D              | 12                                                    | 12.2      | 38                                              | 38.8      | 24                                           | 24.5                                     |
| SD             | 5                                                     | 5.1       | 4                                               | 4.1       | 15                                           | 15.3                                     |
| Total          | 98                                                    | 100       | 98                                              | 100       | 98                                           | 100                                      |
| Mean           | 3.53                                                  | 2.81      | 2.80                                            |           |                                                |                                          |

Source: Field Survey Data (May 2019) (SPSS Output).
The mobile marketers offer different concerns that they older is Ethio of mobile ad. From the educational perspective, the students had the possibility to choose the timing they receive the possibility to choose the kind of ad they receive and if mobile results also show that intentions and the offers made by mobile marketers. The because of the mismatch between their purchase strong positive attitude towards mobile advertising. The results of the study that protect the privacy of its customers. This research has also a crucial contribution for the academia by paving the way to study case in wider scope.

CONCLUSION AND RECOMMENDATIONS

The results of the study show that students do not have a strong positive attitude towards mobile advertising because of the mismatch between their purchase intentions and the offers made by mobile marketers. The results also show that the students’ attitude towards mobile advertising would be strongly positive if they had the possibility to choose the kind of ad they receive and if they had the possibility to choose the timing they receive the mobile ad. From the educational perspective, the students agree that advertising through SMS has negative impact on quality of education because of its disturbance. For mobile advertising to be accepted the students stated different factors like trust, risk, relevance and shopping style. They would feel more comfortable about mobile marketing if they knew the marketer and strongly believe the mobile marketing service providers must have the customers’ permission prior to sending messages. Informational and financial risks were also raised and when a financial error occurs, students believe that they cannot get compensation from mobile marketers. It was less that the students found the mobile marketing messages relevant to their needs and their shopping style.

In view of the findings of the study, we make the following recommendations: 1) The mobile marketers must do a proper segmentation of their customers in order to deliver personalized, relevant and needed messages and ensure the acceptance of mobile marketing. 2) Ethio–Telecom should protect its customers from being disturbed by the advertisers without their permission by implementing a permission marketing policy.

Implication of the research

This research may contribute to different concerned stakeholders. The first stakeholder is Ethio–Telecom which formulates, communicates and implements laws that protect the privacy of its customers. This research has also a crucial contribution for the academia by paving the way to study case in wider scope.

Limitation/Suggestions for further studies

The first limitation is that the data were collected from one University (Bahir Dar University), therefore generalization
of the findings country wide and worldwide might be problematic. Future studies may consider other university students/other customers from different places.

CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

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