



Mobile Marketing Initiatives on Consumer Attitudes and Buying Behaviour of Young Consumers in Sri-Lanka

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Authors' contributions

This work was carried out in collaboration between both authors. Author FS designed the study, performed the statistical analysis and wrote the protocol. Author VS managed the analyses of the study and wrote the first draft of the manuscript. Both authors read and approved the final manuscript.

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ABSTRACT

Purpose: Mobile marketing is act as a phenomenon of great impact and relevance for marketing communications because it provides a continuous access to the consumer “anytime and anywhere”. Development of mobile marketing has become a greater opportunity to maintain an interactive and meaningful communication with customers for businesses, especially within the young generation. Young consumers are not homogeneous audiences for mobile marketing as their usage patterns and attitudes are widely depending on their social background, technological literacy and urban/rural lifestyles. The main objective of this study is to examine the influence of innovative mobile marketing services on customer attitudes and buying behaviours of young consumers in Sri-Lanka.

Method: Quantitative approach was used to investigate the specific research objective followed by explanatory research design. The sample size for this study was 130 undergraduates attached to university of Sri Jayewardenepura. Survey method was used to collect the data and a structured questionnaire was utilised as a data collection tool.

Findings: Multiple regression analysis results revealed the statistically significant relationships between mobile marketing initiatives (mobile app marketing and SMS marketing) and customer

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buying behaviour. The regression-based path analysis results indicated that customer attitudes mediate the relationship between mobile app marketing and customer buying behaviour. The path analysis on SMS marketing, customer attitudes and consumer buying behavior revealed that there was no mediating effect of customer attitudes for the relationship between SMS marketing and customer buying behaviour.

Research Implications: Mobile marketing initiatives provide marketers and business to connect more closely to customers. It is important for the marketers to know the influence of mobile marketing initiatives on the consumer buying attitudes and behaviours whether they are positive or negative.

Keywords: Mobile app marketing; SMS marketing; path analysis; young consumers.

1. INTRODUCTION

Mobile marketing is act as a phenomenon of great impact and relevance for marketing communications nowadays [1]. Mobile marketing differentiates itself from other marketing mediums like TV, radio and newspapers through its highly interactive nature. Mobile marketing provides a continuous access to the consumer “anytime and anywhere” [2].

Mobile marketing is defined as a marketing method which is conducted by mobile devices by enabling the customers to receive advertisements about desired products and services. With the trend towards the mobile marketing services as a one to one marketing method, marketers use this tool effectively [3]. Development of mobile marketing has become a greater opportunity to maintain an interactive and meaningful communication with customers for businesses. Specially, within the young generation, businesses try to increase the popularity of mobile marketing [1].

Recently SMS, MMS, Mobile apps, video games, videos and mobile advertising are famous among consumers as mobile marketing initiatives. E-marketers predict that consumers will spend more time on mobile devices than they do watching TV. In line with that, 52.2% of all website traffic worldwide was generated through mobile phones in 2018. There were 3.75 billion internet users worldwide in 2019, 86.2% use a mobile phone to go online. Further, mobile advertisement spent US\$ 93 billion in 2019 and it is predicted to reach US\$ 131.41 billion by 2022. (6 Big Mobile Marketing Trends CMOs Must Watch in 2019). Averagely, consumers spend more than five hours a day on their smartphones, and a recent survey found 88% of consumers are watching videos and spend time on smartphones [3].

Innovative Mobile marketing services offer custom-made information that promotes goods, services and ideas. Some mobile marketing services are parallel to advertising delivered over other electronic channels such as text, graphic and voice messages. SMS messaging, mobile apps, video advertisements are presently the most common delivery channels for mobile marketing [4]. In 2022, consumers in the world are projected to download 31.5 billion mobile apps to their mobile devices.

Within technological era, organisations are constantly seeking for modern technologies to improve communication, buying, selling, promoting and other marketing activities to reach their business goals. So, among these modern technological mediums the business firms use mobile technology which being branded as mobile marketing. In mobile marketing, the marketers need to offer an unforgettable experience to customers. As per the use of mobile marketing initiatives there is an impact for customers’ buying attitudes and behaviours. It may be positive or negative attitudes while the attitudes influence on behaviours on customers either positively or negatively. These attitudes and behaviours determine the more attraction towards the mobile marketing services [5]. As such, it requires to extend our knowledge on how attitudes and behaviours of customers change due to the implementation of marketing initiatives of organisations and whether consumers are encouraged to buy more products and services due to the implementation of marketing initiatives.

Concerning Sri Lankan context, 24.3 million mobile devices are registered in 2017 and at least seven out of ten people check their mobile devices every 20 minutes [6]. Mobile phones and other portable digital devices have been turned into a basic need for especially young and adult consumers. Among the consumers, young consumers are not homogeneous audiences for

mobile marketing as their usage patterns and attitudes are widely depending on their social background, technological literacy and urban/rural lifestyles. In this aspect, the main objective of this research is to examine the influence of innovative mobile marketing services on consumer attitudes and buying behaviours of young consumers in Sri-Lanka.

2. LITERATURE REVIEW

2.1 Mobile Marketing

Mobile marketing became as an evaluation of internet-based marketing which has moved to perform through mobile phones; while consumers had lost interest in traditional marketing channels. This medium can be successfully used to build strong relationships with customers. Mobile marketing started from SMS for advertising. The mobile phone is a very personal device that allows users to be accessed any time anywhere. In recently mobile devices become an important channel which companies use to advertise their products and services. So, the companies are highly concerned to create positive attitudes towards this growing medium [7].

Mobile marketing has been popular in the business world because of its convenience in sending messages about products and services to individual customers. Marketing activities conducting through mobile devices enable the business firms to reach potential customers in a speedy way. In the present world this medium has been one of best marketing medium which can use in an effective manner to attract consumers all over the world [8]. Mobile marketing is a form of marketing, advertising or sales promotion activities done through a mobile channel by aiming consumers [8]. This wireless marketing medium is using for providing consumers with time and location services, personalized information that promotes products and services. Developments in mobile technology provided an opportunity for advertisers to implement higher quality images and banners on mobile devices to promote their products and services. Consequently, mobile advertisers can produce more efficient advertisements with higher quality and richer.

2.2 Mobile Marketing Initiatives

SMS, MMS, mobile apps, QR codes, voice marketing and location-based services are classified as the frequently implemented mobile marketing initiatives [7]. The SMS

advertisements which are text based have accepted by consumers as a cost-effective delivery method. SMS messages have higher open rates than other similar marketing tools (e-mail marketing) [7]. SMS marketing offers most probably the best way in reaching individuals all over the world. Location-based marketing takes advantage by targeting people in a certain location. So, the marketers sent advertisements based on where the user is or where the user is going. This is one of mobile marketing initiative used by marketers [7].

MMS (Multimedia Message Service) mobile marketing can be defined as a timed slideshow of images, text, audio and video. This mobile content is delivered via MMS. At present, new mobile phones are produced with a colour screen which can send and receiving standard MMS message. Marketers can send MMS with rich content through MMS A2P (application-to-person) and P2P (person-to-person). Push notification is a message that pops up on a mobile device. It is a method that transfers information from a software application to a computing device without any appeal from a customer. This method looks like SMS notifications, but they are reached only to customers who have installed the apps. SMS and push notifications are famous mobile marketing initiatives among customers [4].

Concerning the prior studies, the study focused on SMS marketing and mobile APP marketing as the mobile marketing initiatives which have been influenced on customer attitudes and buying behaviours of young consumers in Sri-Lanka.

2.3 SMS Marketing

SMS marketing has been an important marketing tool as it can be customized according to place, time and interests of consumers. It is a fast and effective marketing tool which uses the short message services to maintain the customer relations [9].

SMS marketing has identified by marketers as a cost-effective way to deliver messages to consumers [10]. SMS messages have higher open rates than other similar marketing tools like e-mail marketing. Mostly in developed countries the users read the complete message come through SMS shortly after receiving them. Specially, the SMS marketing reaches individuals all around the world including the users in lower-income countries in proper way. One major form of mobile marketing is through SMS text

messages, which is the only offline form of marketing tool use by marketers. Moreover, the business firms mostly send SMS to customers to promote their brands and products. There is a high reading ratio of text messages within customers. About 99% of the text messages are read by the recipient and 90% of the text messages sent are read within three minutes after delivery [11]. The SMS marketing tool possesses more benefits like being immediate, customized, automated, direct, reliable, personal, and discreet as well as being a direct call to customers that is far more attractive and impressive than any other marketing media [11].

2.4 Mobile APP Marketing

Mobile app marketing / in-app advertisements are pulled upon by the consumers themselves while the SMS/MMS marketing are pushed towards the consumer by marketers. Among many new marketing opportunities available in the business world, the mobile app is more attractive medium towards the consumers. The in-app advertising offers the business organizations the opportunity to target and reach the customers directly within their mobile apps [12]. App advertisements can be displayed via various types like, series of banners, pop ups on full screen interstitials. Mobile app marketing provides a richer experience than previously by adding more multimedia features.

With the improvement of the technology today not only SMS marketing ad supported mobile applications such as social networking apps, game apps, shopping apps, are widely spread via customers [10]. Mobile applications (mobile apps) which business firms choose to advertise are attractive marketing media for gain more customers towards their product and services [11]. The mobile apps are relatively easier to create than computer apps, as well as their considerably lower price has been an advantage for business firms to do their advertising about brands and products through these apps [7].

2.5 Consumer Attitudes and Mobile Marketing Initiatives

"Attitude is a learned predisposition to respond in a consistently favourable or unfavourable manner with respect to a given object" [12]. Attitudes is further defined as; "mental states used by individuals to structure the way they perceive their environment and guide the way they respond to it" [5]. Generally, attitudes towards mobile advertising have been said to be

more positive than traditional media, more entertaining and informative, and less irritating. Creditability acts as a positive attitudinal antecedent. Entertainment and informativeness were also found as a positivity influencer on customer attitudes. The prior studies found that negative attitudes towards mobile app marketing [9;12]. The study [12] analysed five attitudinal antecedents as factors affecting for attitudes; such as entertainment, informativeness, creditability, interactivity and irritation. Results revealed that entertainment, informativeness, creditability and interactivity were positively correlated with the overall attitudes while the irritation factor was negatively correlated [12].

The study [9] determined the customer attitudes towards SMS advertisements. In this study, university students' ages, genders, the number of SMS ads they receive on mobile phones per week, the attitudes they have towards ads and special offers they received on the phone, the amount and frequency of shopping they do per month were investigated. The results implied that age, gender, the number of text messages with content received on a weekly basis and the frequency of shopping the students do monthly do not seem to have an influence on the reliability and attractive quality of SMS ads. And it observed that there is a meaningful difference of SMS ads reliability and the attraction they have towards ads and special offer messages received on the phone.

Like other marketing media, the mobile phones users can't avoid receiving SMS, telemarketing calls and web content links. Thus, it is important to realize negative attitudes align with mobile marketing [5]. Aydin [10] conducted a study to compare mobile apps and SMS towards consumers' attitudes. They found that SMS adds make more negative attitudes than the mobile apps. In this study, information, trust, attraction, creditability and irritation has taken as main variables as the factors affecting consumer attitudes on mobile marketing.

Hashim [13] investigated how entertainment, informativeness, irritation and creditability factors affect to the attitude towards mobile advertising on customer purchase intention. It was found that the entertainment element in the message content has positive influence on customer attitude towards accepting mobile advertising. Mobile advertising is acceptable if it is funny and concise. Especially young people are attracted for these kinds of advertisements. Although, informativeness has been positively perceived by

the respondents, the respondents considered informativeness as a trustworthy and timely medium. While this study showed that informativeness and entertainment as favourable factors towards mobile advertising, respondents perceived mobile advertising as irritation and sometimes disturbing. The study further found that irritation factor doesn't predict attitudes towards advertising. Respondents considered credibility with trustworthy and convincing characters and use credibility as reference to purchase a product or service. This study also examined the influence of mobile marketing on consumer purchase intention and customer attitude. From the findings, it indicated that attitude towards mobile advertising has a positive relationship with purchase intention.

Shaouf [7] developed a conceptual model to examine the relationship between four important factors (perceived usefulness, perceived enjoyment, perceived irritation and trust in mobile add) and attitudes toward mobile advertisements. The study suggested that direct and positive effects on perceived usefulness, perceived enjoyment and trust of consumer attitudes towards mobile advertisements. Further, it proposed that there is a direct and negative impact of perceived irritation on consumer attitude towards mobile advertising. These findings suggested that when a mobile add is to be trusted and enjoyable, the internet users are more likely to prefer mobile advertisements. When a mobile add is to be annoyed, there is a negative effect on attitudes towards on mobile advertising. However, the results of this study did not find any positive effect of perceived usefulness on users' attitudes towards mobile advertising messages. This finding was suggested that perceived Informativeness is not as important as perceived enjoyment and trust in forming attitudes towards mobile advertising.

2.6 Customer Buying Behaviour and Mobile Marketing Initiatives

Consumers are strongly influenced by various factors when they are making decisions regarding buying products. The prior studies revealed that there are considerable factors which influence on purchasing behavior namely; aware of new product through marketing on mobile phone, informed about latest news in sport/entertainment through SMS, respond to text messages promotion sent to phone, currently use phone to receive information need, subscribe to receiving latest news on phone after receiving SMS advertisements, regularly buy

product/service that give timely information, use mobile application to know the product and so on [8].

Customer purchasing behaviour can be categorized as cognitive responses and affective responses [5]. Cognitive responses towards mobile marketing indicate that counter arguments which are negative behavioural outcomes. Affective responses towards mobile marketing indicates that supportive arguments which are positive behavioural outcomes. It has examined that when marketers provide SMS advertising with entertaining and informative to the target customers, they are likely to receive it with pleasure and it increase their purchase intention [5].

As Thangadurai [8] insisted, receive with pleasure, share personal information when buying products, contact or login in company's website for accessing products/services related information and purchase products/services directly through mobile marketing initiatives are positive purchasing behaviour outcomes of mobile marketing. However, some consumers feel uncomfortable with the mobile marketing, specifically when sharing their personal information. Accordingly, consumers think that mobile marketing initiatives are annoying, therefore, some negative purchasing behaviour outcomes have been found namely; ignore to receive calls or messages or delete messages, provide wrong information when buying products, receive mobile marketing advertisements as time pass [5].

Considering the prior studies the present study focused on SMS marketing and mobile APP marketing as the mobile marketing initiatives which have been influenced on customer attitudes and buying behaviours of young consumers in Sri-Lanka.

3. RESEARCH DESIGN

The study used quantitative approach followed by explanatory research design. The scope of the study consisted with young consumers in Sri Lanka. In here the university students has been taken as the sample because they are a main part of young generation and dealing with the new technological developments. Convenience sampling technique was used to select the sample from the target population.

3.1 Conceptual Framework

As per the framework developed, mobile marketing initiatives; SMS marketing and Mobile

APPs marketing, act as independent variables. The consumer attitudes and buying behaviour considered as dependent variables. Further, consumer attitude enters as the mediating variable as it influences for the relationship between mobile marketing initiatives and consumer buying behavior (Fig. 1).

The hypothesis developed based on the conceptual framework as follows;

- H1: Mobile APP marketing influences consumer buying behaviour in young consumers in Sri Lanka;
- H2: SMS marketing influences consumer buying behaviour in young consumers in Sri Lanka;
- H3: Consumer attitude mediates the relationship between mobile app marketing and customer buying behaviour.
- H4: Consumer attitude mediates the relationship between SMS marketing and customer buying behaviour.

3.2 Operationalization

A personally-administered, structured questionnaire was developed to collect data from the selected young consumers. Acknowledging the prior studies measurement items, the study developed items to measure mobile app marketing, SMS marketing, consumer attitude and consumer buying behaviour (Table 1). Likert scale was applied as a measurement scale of choice. The scale of choice ranged from strongly agree to strongly disagree with a neutral point in the middle. The questionnaire contained a total of 25 questions. The questionnaire was developed using Microsoft Google forms and was distributed using electronics methods using WhatsApp and Facebook.

3.3 Data Analysis

The initial step of data analysis is to check the data set for errors in order to avoid mistakes when entering data. The reliability and validity of the measurement items are used to test the goodness of data. The consistency of the measurement items is tested by using Cronbach's alpha values. The central tendency (mean and ranges) and the dispersion (standard deviation and variance) for quantitative variables and frequency (percentage) for qualitative variables are used test the data. This will show how the respondents have responded to the items in questionnaire. Once the data fulfilled the criteria of goodness, the hypotheses can be tested. The regression-based path analysis was used to analyse the relationships developed in the study. Regression-based path analysis allows for the modelling of multiple interrelated relationships between endogenous and exogenous variables, decomposing correlation into direct, indirect and spurious effects [16]. Distinguished from ordinary least squares regression and maximum likelihood estimation regression, PROCESS allows for conditional indirect effects in the moderated mediation models. Hence, the regression-based path analysis is employed to test the mediating effect hypotheses constructed. The regression-based path analysis follows four steps in order to assess the mediating effects of variables and their significance. Accordingly, (1) the path coefficient between independent and dependent variables must be significant; (2) the path coefficient between independent and mediating variables should be significant; (3) the path coefficient between mediating and dependent variables should be significant and (4) when the mediating variables are included in the model,

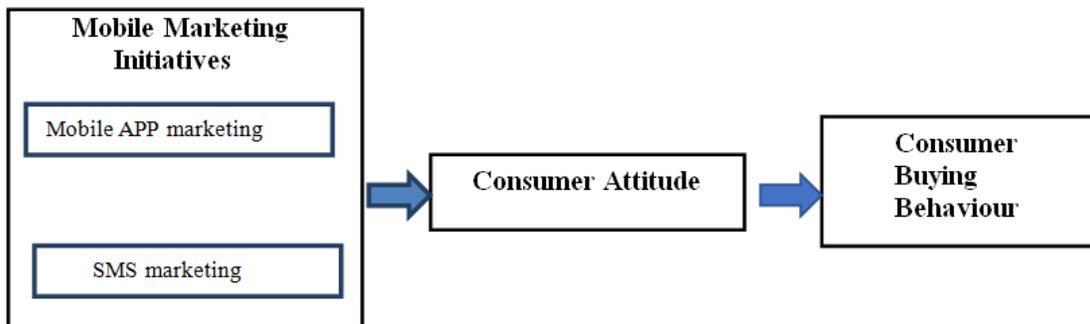


Fig. 1. Conceptual Framework

Table 1. Operationalization table

Variables	Measurement Items	source
Mobile marketing initiatives	<p>Mobile apps marketing:</p> <p>Argument quality Using the mobile app is informative. Using the mobile app is valuable. Using the mobile app is helpful.</p> <p>Usefulness Using the mobile app would be useful in meeting my needs.</p> <p>Continued use intention I plan to use the mobile app in the future. Awareness of the mobile apps and SMS marketing. Interest in mobile apps and SMS marketing. Experience with mobile apps and</p> <hr/> <p>SMS marketing: I find receiving advertisements as SMS on mobile devices useful. I like receiving mobile marketing messages on my mobile devices. I find receiving advertisements such as SMS very informative</p>	[14]
Customer attitude informativeness Entertainment irritation disturbance	<p>I am open to receive advertising on my mobile device if it is based on my personal profile.</p> <p>You acquire the information you seek about products via the mobile phone</p> <p>You follow the information you receive via mobile marketing regarding discounts.</p> <p>I am open to receive advertising on my mobile device if it involves entertainment.</p> <p>Entertaining messages have a bigger effect on your following.</p> <p>I feel uncomfortable about the security issues when companies sent messages about their services.</p> <p>I feel receiving advertisements as SMS on mobile devices disturbing me.</p>	[15]
Customer behaviour	<p>Made a purchase or participated on a mobile advertising campaign because of receiving advertising that involved entertainment on your mobile device.</p> <p>Made a purchase or participated on a mobile advertising campaign because of receiving advertising on your mobile device that related to your personal profile.</p> <p>When I feel satisfied with the marketing message received on the various services, I tend to forward to my friends.</p> <p>I respond to the messages I get by further going online through my mobile devices and checking for more information.</p> <p>I have purchased products via the mobile phone.</p>	[5]

the path coefficient between the independent and dependent variables should decrease in size and has to be non-significant. The collected data were analysed by entering into Statistical Package for Social Sciences (SPSS 23.0 version package).

4. FINDINGS

Due to the prevailing situation of Covid-19, only 130 responses received. Out of 130 respondents, 8 questionnaires were not completed properly; therefore 122 questionnaires were taken into final consideration. The characteristics of the respondents are described in terms of gender, age, type of mobile device, awareness of mobile marketing, used SMS and Mobile app marketing for purchase products. The study sample consisted of 52 male (42.6%) and 70 females (57.4%). 114 respondents (93.4%) were between 21-24 age group and 8 students (6.6%) were between 22-29 years of age. Out of 122, 118 respondents were using mobile phones (96.7%) and 4 were using tablets or other devices (3.3%). 113 respondents were aware about the mobile marketing (92.6%) while 9 were not aware about mobile marketing (7.4%). 57 respondents have used SMS ads to purchase products (46.7%) and 65 haven't used (53.3%). Finally, 97 respondents have used mobile app/ads to purchase products (79.5%) while 25 haven't used (20.5%).

4.1 Factor Analysis

Factor analysis was applied for data reduction and purification of the items under each variable of the study. In order to check factorability of the data Kaiser Meyer-Olkin (KMO) measure of sampling adequacy was run. 0.6 is suggested as the minimum values for a good factor analysis [11]. Table 2 shows the results of factor analysis.

As shown in Table 2, the KMO value of all the variables were greater than 0.6. KMO value for Mobile app marketing variable showed as .672 while SMS marketing showed the KMO value as .716. The KMO value of customer attitudes showed as .696 and customer buying behaviour was .741. The total variance explained of measurement items were greater than 50%, indicating the appropriateness of the total variation in the items of respective factors. Finally, the measurement items were extracted into single component of respective variable. The values of the measurement items indicate in the component matrix of each variable shows the values are greater than 0.5. So, each measurement item was validated.

4.2 Reliability Analysis

The reliability analysis was conducted to check the internal consistency of each factor, which

shows the reliability of factors. The Cronbach Alpha values should be above .7 as it is the minimum value to consider the variables are reliable [11]. Table 3 illustrates the reliability of each variable. All the variables were greater than 0.7.

Based on Table 3, Cronbach's Alpha value for two dimensions of independent variables are, Mobile marketing alpha value is 0.718, SMS marketing alpha value is 0.822. For the dependent variables, the Alpha value for customer attitudes is 0.743 and for customer buying behaviour value is 0.752. Therefore, above two dimensions (Mobile marketing and SMS marketing) can be identified as providing good support for Customer attitudes and buying behaviour.

4.3 Correlation Analysis

Table 4 shows the inter-correlational values between the variables. There were significant correlations between the variables at 0.05 level, except the relationship between SMS marketing and consumer attitude. None of the correlation coefficients was above 0.85, indicating the absence of multicollinearity in the model.

4.4 Hypotheses Testing

Table 5 shows the results of regression-based bath analysis on the relationships on mobile app marketing, consumer attitude and consumer buying behaviour. As shown in Table 5, mobile APP marketing was a significant predictor for both consumer attitude and buying behaviour (model 1 and model 3). Consumer attitude was a significant predictor for consumer buying behaviour (model 2). In model 2, attitude was a significant mediator on the relationship between mobile APP marketing and buying behaviour ($p = .0000$, $p < 0.05$). The measure of indirect effect of attitude on mobile APP marketing and buying behaviour recorded as 0.0816, which was statistically significant at 95% confidence interval (zero value was not counted between lower level confidence interval and upper level confidence level, 0.0136-1.891). So, the result confirmed the hypotheses of H1: Mobile APP marketing influences consumer buying behaviour in young consumers in Sri Lanka and H3: Consumer attitude mediates the relationship between mobile app marketing and customer buying behaviour.

Table 2. Factor analysis

Variable	KMO value	Bartlett's test of sphericity chi-square	Total variance explained	Factor loading	
Mobile app marketing	.672	72.837	64.447%	Component matrix^a	
				Component 1	
				Mobile app .833	
				MQ2 .802	
SMS marketing	.716	130.567	73.954%	Component matrix^a	
				Component 1	
				SMS .871	
				SQ2 .838	
Customer attitudes	.696	193.470	64.478%	Rotated component matrix^a	
				Component 1	Component 2
				Attitude .730	
				AQ2 .502	.509
				AQ3	.884
				AQ4	.873
				AQ5 .810	
				AQ6 .704	
				Component transformation matrix	
				Component 1	Component 2
				1 .728	.686
2 .686	-.728				
Customer buying behaviour	.741	184.392	65.118%	Rotated component matrix^a	
				Component 1	Component 2
				Behaviour .827	
				BQ2 .783	
				BQ3 .666	
				BQ4 .824	
				BQ5	.820
				BQ6	.826
				Component transformation matrix	
				Component 1	Component 2
				1 .908	.420
2 -.420	.908				

Table 3. Reliability analysis

Variable	Cronbach's alpha	Cronbach's alpha based on standardized items	No of Items
Mobile marketing	.718	.724	3
SMS marketing	.822	.824	3
Customer attitudes	.743	.749	6
Customer buying behaviour	.752	.749	6

Table 4. Correlation matrix

Variables		MA	SMS	ATT	CBB
MA (mobile app)	Pearson correlation	1			
	Sig.				
SMS (SMS)	Pearson correlation	.292**	1		
	Sig.	.001			
ATT (consumer attitude)	Pearson correlation	.243**	.175	1	
	Sig.	.007	.055		
CBB (consumer buying behaviour)	Pearson correlation	.388**	.331**	.397**	1
	Sig.	.000	.000	.000	

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

Table 5. Mediating analysis of consumer attitude on relationship between mobile app marketing and consumer buying behaviour

Outcome: ATT							
Model summary							
	R	R-sq	MSE	F	df1	df2	p
	.2431	.0591	.1822	7.5390	1.0000	120.0000	.0070
Model 1							
	coeff	se	t	p	LLCI	ULCI	
constant	1.7542	.1640	10.6967	.0000	1.4295	2.0789	
MA	.2064	.0752	2.7457	.0070	.0576	.3552	
Outcome: CBB							
Model summary							
	R	R-sq	MSE	F	df1	df2	p
	.4980	.2480	.2217	19.6275	2.0000	119.0000	.0000
Model 2							
	coeff	se	T	P	LLCI	ULCI	
constant	1.0505	.2529	4.1544	.0001	.5498	1.5511	
ATT	.3953	.1007	3.9259	.0001	.1959	.5948	
MA	.3233	.0855	3.7819	.0002	.1540	.4926	
Outcome: CBB							
Model summary							
	R	R-sq	MSE	F	df1	df2	p
	.3881	.1507	.2483	21.2859	1.0000	120.0000	.0000
Model 3							
	coeff	se	T	P	LLCI	ULCI	
constant	1.7440	.1915	9.1086	.0000	1.3649	2.1231	
MA	.4049	.0878	4.6137	.0000	.2311	.5787	
Total, direct and indirect effects							
Total effect of X on Y							
	Effect	SE	t	P	LLCI	ULCI	
	.4049	.0878	4.6137	.0000	.2311	.5787	
Direct effect of X on Y							
	Effect	SE	t	P	LLCI	ULCI	
	.3233	.0855	3.7819	.0002	.1540	.4926	
Indirect effect of X on Y							
	Effect	Boot SE	BootLLCI	BootULCI			
ATT	.0816	.0441	.0136	.1891			

Table 6 shows the results of regression-based analysis on the relationships on SMS marketing, consumer attitude and consumer buying behaviour. As shown in Table 6, SMS

marketing was a significant predictor for only consumer buying behaviour (model 1 and model 3). Consumer attitude was a significant predictor for consumer buying behaviour (model 2). In

model 2, attitude was a significant mediator on the relationship between SMS marketing and buying behaviour ($p = .0000, p < 0.05$). However, the measure of indirect effect of attitude on SMS marketing and buying behaviour recorded as 0.0427, which was not statistically significant at 95% confidence interval (zero value was counted between lower level confidence interval and upper level confidence level, $-.0026-.1200$). If one of limits is positive and other limit is negative, the effect is considered as null or not significant. So, the data were not supported to the hypothesis; H4: Consumer attitude mediates the relationship between SMS marketing and customer buying behaviour. The result confirmed the hypothesis; H2: SMS marketing influences consumer buying behaviour in young consumers in Sri Lanka.

5. DISCUSSION

The study focused on to identify the influence of mobile marketing initiatives on consumer attitudes and buying behaviour of young consumers in Sri-Lanka. So, the study was based on university students as they are a part of young generation and the usage of mobile phones is high among them. Supported by the other research studies this study found that mobile app marketing influence for the customer attitudes and customer attitudes influence for the relationship between mobile app marketing and customer buying behaviour. It found that there is no relationship between SMS marketing and customer attitudes and customer attitudes don't affect the relationship between SMS marketing and customer buying behaviour. But customer

Table 6. Mediating analysis of consumer attitude on relationship between SMS marketing and consumer buying behaviour

Outcome: ATT							
Model Summary							
	R	R-sq	MSE	F	df1	df2	p
	.1745	.0305	.1877	3.7967	1.0000	120.0000	.0545
Model 1							
	coeff	se	t	p	LLCI	ULCI	
constant	1.9140	.1483	12.9024	.0000	1.6203	2.2077	
SMS	.0992	.0511	1.9416	.0545	-.0020	.2003	
Outcome: CBB							
Model summary							
	R	R-sq	MSE	F	df1	df2	p
	.4776	.2281	.2276	17.5800	2.0000	119.0000	.0000
Model 2							
	coeff	se	t	p	LLCI	ULCI	
constant	1.1326	.2525	4.4879	.0000	.6329	1.6323	
ATT	.4302	.1005	4.42796	.0000	.2311	.6292	
SMS	.1882	.0571	3.2944	.0013	.0751	.30313	
Outcome: CBB							
Model SUMMARY							
	R	R-sq	MSE	F	df1	df2	p
	.3306	.1093	.2604	14.7209	1.0000	120.0000	.0002
Model 3							
	coeff	se	t	p	LLCI	ULCI	
constant	1.9559	.1747	11.1943	.0000	1.6100	2.3019	
SMS	.2309	.0602	3.8368	.0002	.1117	.3500	
Total, direct and indirect effects							
Total effect of X on Y							
	Effect	SE	t	p	LLCI	ULCI	
	.2309	.0602	3.8368	.0002	.1117	.3500	
Direct effect of X on Y							
	Effect	SE	t	p	LLCI	ULCI	
	.1882	.0571	3.2944	.0013	.0751	.3013	
Indirect effect of X on Y							
	Effect	Boot SE	BootLLCI	BootULCI			
ATT	.0427	.0309	-.0026	.1200			

attitudes influence for customer buying behaviour.

As the usage of mobile phones has increased today, the popularity and the usefulness of the mobile marketing initiatives have increased. Kushwaha [5], revealed that mobile marketing initiatives have a more significant effect on both consumers' negative attitudes and positive attitudes. And in this study, it found that the impact of mobile marketing is negatively affected than positively affect for the customers. It indicates that mobile users are more sensitive for the mobile marketing initiatives and have more negative responses. As per this previous study it identified that most mobile users are uncomfortable with the mobile marketing doing through mobile marketing initiatives because most of times it causes disturbance and irritation. And although is said that mobile marketing initiatives make a good source of information and those are enjoyable and entertaining. So, it suggested that mobile marketing doing through mobile marketing initiatives are a best method for the marketers to promote their products and services.

So, in the present research it revealed that marketing through mobile apps influence for the consumers' attitudes and customer attitudes affect for the customer purchasing behavior. The previous study of Aydin [10] emphasized that according to the findings SMS marketing is more negatively affect for the consumer attitudes than the mobile app marketing. It found that SMS marketing is less entertaining, and it causes more irritation compared to the mobile app marketing. So, most of times users are not considering about the information sent through SMS regarding products and services. In the present study revealed that there is no influence for the consumer attitudes by SMS marketing and there is not any effect for the relationship between consumer buying behaviour and SMS marketing by consumer attitudes.

As per the findings of the previous study of [7], the perceived enjoyment was found as positively and significantly affect for the consumers' purchase intention. It suggested that if a mobile advertisement appear through mobile marketing initiatives like mobile Apps, SMS etc., are perceived to be enjoyable, entertaining the users are more likely to form a positive attitude towards the mobile marketing. So, it will increase the frequency purchasing products and services. It said that informativeness attitude is not more

important as enjoyment and irritation attitude has a negative affect for the purchase intention. This research mainly focused on key drivers of attitudes towards mobile marketing in developing countries like Libya.

When it comes to the present research study, it mainly focused the young generation in Sri-Lanka as the mobile marketing has been an attractive marketing tool of their perspective. In here the university students has been taken as the sample because they are a main part of young generation and dealing with the new technological developments. As per the findings it revealed that basically Mobile app marketing is an influencing marketing tool for the user's attitudes and purchasing intention. The consumer attitude is the mediating factor between the relationship of mobile app marketing and consumer purchase intention. In here it found that SMS marketing is not an influencing marketing tool for consumer attitudes and purchasing intention. For the relationship between consumer buying behaviour and SMS marketing the consumer attitudes are not act as a mediating factor. Basically, informativeness and entertainment attitudes have been focused and questions made to collect data from the students. So as per the data collected it can be predicted that more than SMS marketing Mobile app marketing is familiar with young generation. By analysing the results of respondents,' suggestions are given to improve the mobile marketing practises within the Sri- Lankan context.

Mobile marketing has been become very important in every sector. Many business firms use the mobile technology to advertise and promote their products and services. In the present world mobile marketing has been a growing business potential to marketers. Acceptance of mobile marketing initiatives is influencing consumers' personal attitudes and purchasing behaviour.

The research indicated that mobile app marketing is the initiative that influence for the consumer attitudes and buying behaviour. As per the results, in Sri- Lankan context SMS marketing is not an influencing marketing tool. Because the promotional messages, updated information about products and services can't be more attractive like mobile app marketing. SMS marketing like to be less enjoyable and irritating and without the consumers permission messages can be received. Because of these reasons SMS marketing become an irritating

initiative among the young generation. So, for the marketers who are looking for expand their business have an opportunity to aware how the mobile marketing initiatives influence for the consumer attitudes and buying behaviour. Specially they can successfully connect with the customers more and can find new ways to control the negative attitudes and increase purchasing behaviour. If their marketing activities through mobile marketing initiatives influence customer attitudes negatively it may hurt the firm's business potential.

So, the results of the study suggest several implications for the existing and potential marketers. In future, most youngsters will be entrepreneurs and new innovators. So, this medium will be highly useful for the marketing activities and to understand how to manage consumer attitudes towards higher level of adaptation and purchase intention.

The study was attempted to analyse the influence of mobile marketing initiatives on consumer attitudes and buying behaviour of young consumers in Sri-Lanka. As this study has done by taking university students as a sample of young generation, in future it suggests taking the sample from various parties who are representing the whole society. Specially, the usage of smart phones has been increased rapidly among the old generation. It will be interesting to find out how the attitudes and purchasing behaviour are influencing by the mobile marketing initiatives among the young and old generations.

The present work has only focused on the consumer side so in future work the supply side responses can be taken to analyse how the mobile marketing initiatives contribute to improve their business works in the competitive business world.

With the improvement of technology world is using different mobile marketing mediums to promote their products and services. But in here, only SMS, Mobile app marketing tools has been taken as the initiatives. So further research work is needed using different types of mobile marketing initiatives. However, the present paperwork has contributed to find out the influence of mobile marketing initiatives on the consumer attitudes and buying behaviour with the limitations and it opens new areas to be found out in future research work. Moreover, the Covid-19 pandemic situation probably changed mobile marketing tools since the world

is now trending towards utilising online platform. This might open a new shed to consider these changes on consumer attitudes and behaviour.

6. CONCLUSION

As the world is going towards to an incredible technological era the business firms try to find out new marketing methods to expand their businesses. As a country like Sri Lanka is moving towards new technological developments, therefore it should focus to encourage business firms to involve in mobile marketing more. In here, not only the younger generation but also the old generations are using smart phones for their day today life. They have been attracted for mobile marketing than the traditional marketing media like TV advertisements, radio and newspaper advertisements. With the busy schedule of the people they have been used to engage with smart phones whole day. So, consumers always try to find out more information about various products and services curiously to full fill their needs. Specially the app-based marketing (Mobile app) through social media apps like Facebook, Instagram and Youtube have been famous among the worldwide.

So, the business firms in Sri Lanka can use this medium to make an image in consumers' heart and encourage them to buy their products and services. As a trend, it is developing within Sri-Lankan business context. So as a result of the new trend of this marketing medium there was a need to identify whether these marketing mediums really influence for consumer attitudes and buying behaviour. So, the main purpose of the study was to examine influence of mobile marketing initiatives on consumer attitudes and behaviours of young consumers Sri Lanka. From the results, it found that mobile app marketing is the influencing medium for the consumer attitudes and attitudes act as mediating factor for the relationship between mobile app marketing and consumer buying behaviour. It is hoped that future researchers may reflect positively on this.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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