

THE EFFECT OF SMS MARKETING ON ATTITUDE, INTENTION AND BUYING BEHAVIOR OF CONSUMERS OF KARACHI

^{1*} Sheraz Bin Sher Muhammad, ² Dr. Muhammad Asim, ³ Salman Manzoor

¹ Karachi University Business School (KUBS), University of Karachi, Pakistan

*Corresponding Email: muhammadsheraz7890123@gmail.com

² Ex Chairman, Karachi University Business School (KUBS), University of Karachi, Pakistan.

Email: masimku@hotmail.com

³ Ph.D Scholar Karachi University Business School (KUBS), University of Karachi, Pakistan

Email : salmankubs@gmail.com

| ARTICLE INFO | ABSTRACT |
|--|--|
| <p><i>Article History:</i> Received: January Revised: February Accepted: March Available Online: March</p> <hr/> <p><i>Keywords:</i> consumer behavior, entertainment, infotainment, SMS marketing, purchase intention</p> <hr/> <p><i>JEL Classification:</i> M3, M31</p> | <p><i>These days where mobile playing a significant role in every individual's life. No one can live without it. Due to the rapid increase of mobile usage, the marketing industry also entered in the grow the market tree from it. It was an obvious reaction that the recipient was not only read the message but also respond to it quickly. Perhaps, in this study was derived from the consumer of Karachi and find the consumer attitude towards SMS advertising and find that whether consumer buying decision was to rely upon SMS advertising. However, the study reveals the four attributes of attitude (Entertainment, Infotainment, Irritation, and Credibility). Purchase intention of the consumer is associated with the diverse effect of SMS marketing where the consumer decided that it could be benefited or time waste. In the questionnaire survey, 300 participants were involved which collected by the survey form and analyzed by the SPSS tool.</i></p> |

© 2021 The authors, under a Creative Commons Attribution-Non-Commercial 4.0

1. INTRODUCTION

In the cutting edge of the digital era where the high tech-devices changes consumer behavior day by day. The organization put their continuous effort to attract the customer and reach towards the target audiences from the several marketing approaches. Where the technology provides better living standards and opportunities, it also came the challenges for the marketers. Many organizations spend too much investment in advertisement just for gaining customer attention and promotion because many people did not remember the products for a long time. (Uddin, Kalam, Uddin, & Jaman, 2019) Through this way, consumers faced a large number of advertisement schemes, information, and process capabilities which marketer wants to draw the attention of customers. Therefore, the growing opportunity of mobile phones gives marketers privileges to promote the product and services. This short message service was sent to the consumer cellular network and aimed to check the consent of the consumers. This was a powerful tool for customer communication because of cost-effectiveness.

This customer relationship management was managed by the telecommunication companies and open new doors for the advertisement. The invention of the mobile phone revolving various multifunctional in all over the globe, but the SMS advertisement effect varies from culture to culture. In this way, a mobile advertisement is researched from different angles and perceptions of the consumers. Hence, this study was comprised of research related to the city of Pakistan, Karachi. Whereas, find the attitude of different form among the resident of this city. The privacy was compromised in SMS advertising, which different outcome among the customer's attitude. So the gaps are identified

between the above-mentioned problems which were developed by SMS marketing. Since the Pakistan telecommunication Authority was responsible for published the mobile ratio usage all over the cities and enhanced business opportunities by SMS marketing. (Eshra & Beshir, 2019)

Thus, this research study found the model of advertising impact relates to the infotainment, irritation, entertainment, credibility, and consumer buying decision. Therefore, the empirical study is consisting of the literature related to Karachi city with the content of SMS advertisement. This will help the marketer to grow the business strategy by finding consumer intention and buying behavior from using the tool of marketing communication and strategies. The consumer buying decision was also dependent upon the demographic features, which include gender, education level, and marital status.

Hence, there were several studies conducted by the researchers for SMS marketing and other related issues. In light of the context, the attitude towards SMS marketing was relying upon the four factors are entertainment, infotainment, irritation, and credibility. Most people found that entertainment, infotainment, and credibility has positive consumer attitude towards SMS marketing. (Chaudhry, Bilal, & Rasool, 2016). Besides, one study found that SMS marketing is a new tool for launching new products or services, attracting new customers. SMS marketing has several benefits and values for the business perspective and consumers to immediate communication tool where the marketers rapidly wish to target customers. Those consumers who used the cellular network gain the various advantages of SMS marketing.

In contrast, where the SMS marketing brings sportive intention towards the customers is also caused to spoil the privacy, irritation, anger, prior permission, time of sending. Customers will be responding to the messages from the humour, and find the relevance of the information. But it makes irritation which is negatively correlated with consumer's attitudes by SMS marketing. No doubt, content, and control of the messages, time-frequency was also depended upon the consumer buying decision. (Nicolaas, 2016)

2. REVIEW OF LITERATURE AND HYPOTHESES DEVELOPMENT

Mobile marketing was using interactive wireless media to provide information towards consumers for promoting goods and services and further generating business profit. The objective of SMS advertisement was to keep informative, entertain and remind full messages which depended upon the location, benefit of consumers, and place. Mobile phones considering one of the sales units in the corporation which accessible anytime and anywhere and support in the sense of reaching consumer quickly, received feedback of direct customers, data gathering and promotion of products and make brand awareness among the consumers. It capable of attracting new customers and rapidly reached from the target audience and customers find valuable opportunities before making a buying decision. (Hongyan & Zhankui, 2017)

2.1 Attitude and intention towards SMS advertising

The research study found that attitude is the factor which finds the evaluation of favorable and unfavorable intention of a person, emotional feeling, and action taken to certain idea or product. Hence, the effectiveness of SMS advertising merely depends upon the consumer attitude to the message received, advertising company, or media. Whenever the

companies sent the messages to the consumers, they first think about the customer perception of how they react and estimate the SMS advertisement. Whether it consisted of a positive relationship between consumer buying decision and SMS advertising (Lin & Chen, 2015). Consumer attention and attitudes are mainly dependent upon the theory of planned behavior and the technology acceptance model. This theory supports the customer intention shapes and buying behavior, and this was further elaborated when the customer receives SMS advertisement, and such ads reflect from the belief system regarding the brand and increase the purchase intention. The relationship between attitude and intention will have a strong influence on the consumer and highly involved in the product. This was more explains in the theory of reasoned action, which illustrates as attitude is influenced through intention. On the other hand, some research found that customer gives negative attitudes and think that mobile advertising is just time-wasting. But in fact, the demographics element was given a significant impact on the attitude and behavior among the consumers. The attitudes possess significant relationships among the intention to purchase the product and services, but the intention of price and timing was also considered in this regard. But there was no variance in customer attitudes and attention in the gender for SMS advertising. (Althuwaini & Habib, 2018)

2.2 Entertainment

The ability which creates joy in the people and the audience was getting enjoy and always remember that joyful moment is achieved from the entertainment. By using the entertainment tool by the advertisement, the company was getting customer attention and enhanced the efficiency in mobile marketing. Moreover, the positive attitudes were found between customer attitude and entertainment and find a better result for SMS advertising. (Almossawi, 2014)

H1: perceived entertainment has a positive effect on consumer attitude toward SMS marketing.

2.3 Infotainment

The ability to describe the information related to advertisement for the consumer about product or services tend to purchase and achieved the greatest satisfaction after purchasing it. The purpose of advertising was to notify the audience about new product features, price, or any other new changes that occur in the products. It was a significant process in which where consumers received a variety of information and resources. From the infotainment, the consumer attitudes are positive reflection toward the SMS advertisement but not achieved the customer purchase attention. (RAJESH, RAJ, DHUVANDRANAND, & KIRAN, 2019)

H2: the perceived infotainment has a positive effect on consumer attitude toward SMS marketing.

2.4 Irritation

Sometimes the advertisement is going to be very offensive, upset, irritating, and unwanted then it going towards the irritation factor. Perhaps, irritation is one of the main criticism in advertising which builds unhappiness, avoiding situation, and intolerance. The most annoying situation created when there was a lot of messages received from the spam which compromises the privacy content. This perceived irritation was impacting the customer attitudes from SMS advertising. Thus, the irritation was no effect to the customer buying behavior but influenced the negative perception of mobile advertising.

H3: the perceived irritation has a negative effect on consumer attitude toward SMS marketing

2.5 Credibility

It was related to customer trust and believed among the advertising company or firm. It defines the advertisement authenticity of how much influenced the people from the delivered messages. Through this customer estimates the service of the advertising organization and knowledge to select the advertising channel. However, credibility receives a higher amount of advertisement effect and value in front of the customers. It shows a positive relationship between credibility and customer attitude towards the mobile advertisement.

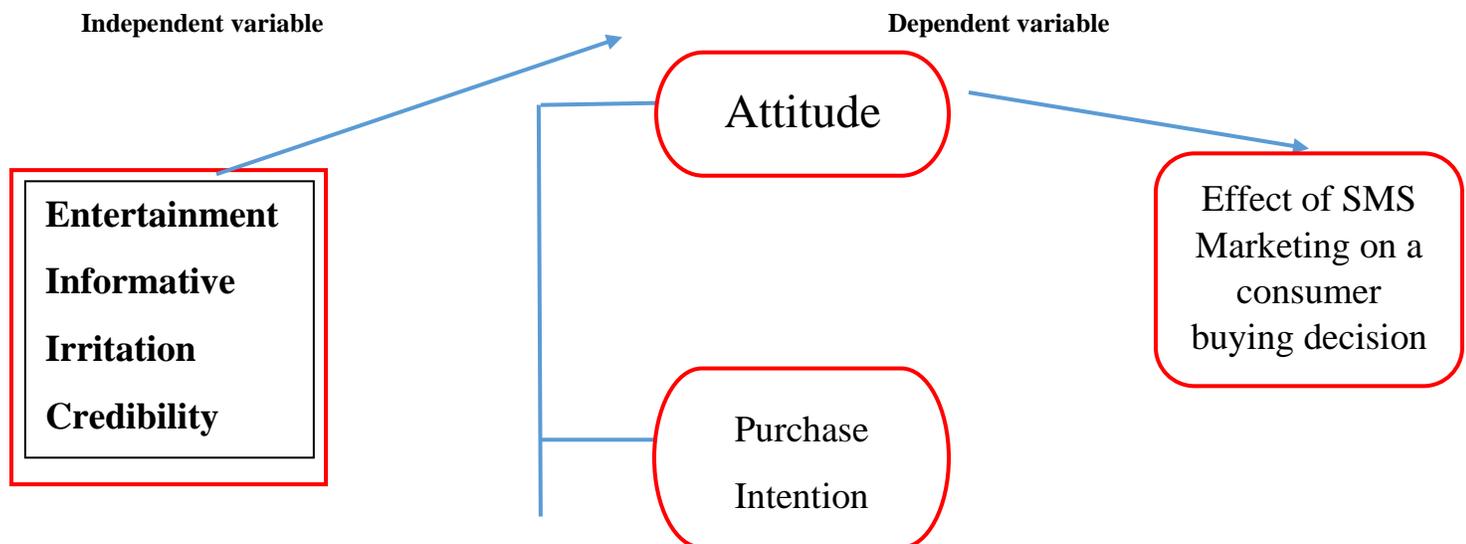
H4: the perceived credibility has a positive effect on consumer attitude toward SMS marketing.

2.6 Customer buying Behavior

The behavior of customers where they used the approaches to find products or services which was fit for the desired outcome and prefer for the experiences. Understanding customer behavior is critical because of the rapid change in social and environmental causes. The organization needs to regulate the business process, and the requirement of success depends upon consumer needs. Hence, to examine the process of consumer buying behavior is need to analyze the marketer is to find the question of which more attracts the customers and then buys, how much buy it, when buying. Similarly, consumer behavior in the mobile phone domain finds much research where the importance was finding as per price, technology, and brand is the main factor to purchase any mobile. If the mobile advertisement is effective, then there was a chance to build a strong impression on the customers and positive responses are occurring. Due to the variety of products available in the market, there was a different buying decision with many choices in the market. Although, the target of an advertiser to make positive influences upon the customer buying decision and attitudes. The consumer attitudes form intention and intention depend upon buying behavior. (Duzgun & Yamamoto, 2016)

3. THEORETICAL FRAMEWORK

The study of the given framework depicts the Independent variable as attitude and intention and the dependent variable as an effect of SMS advertisement on consumer buying behavior. According to the study found that there was a positive relationship between consumer attitude and intention upon SMS marketing. The customer attitude comprised entertainment, infotainment, irritation and credibility which influenced upon buying through SMS advertisement by which they motivate towards offering a product. In this study focus upon the four factors of attitudes like entertainment, informative, irritation, and credibility among the consumer of Karachi and how much impact occur during the purchase decision. This theoretical framework will be more testing in the data analysis section where find the effectiveness of SMS advertising from the customer attitude in purchase behavior.



4. RESEARCH METHODOLOGY

The study was targeted towards the consumer of Karachi who regulated their work by mobile phones and connected to several cellular network companies available in Pakistan. The objective of this study was to identify the attitude and intention of a customer from the SMS advertising and also target the buying behavior. The data collection was comprised of asking about social status, marital status, age, gender. Through this, find a more appropriate collection of SMS targeting customers and analyzed the result from it. The questionnaire was consisting of 19 questions related to the variables of attitude as Entertainment, Infotainment, Irritation, Credibility. Besides, also include the purchase intention question and the SMS marketing question. There were 300 responses received from the research survey, and this questionnaire was adopted from journal articles in which the authors describe the behavior of variables according to the research. In this survey, items were consisting of the Likert scale include agreeing, disagree, strongly agree, neutral, and strongly disagree. Mainly participation in this survey was done by Male, which around 79.3% and others are female. The participant's marital status was 65.5% was single and 34.5% married. The respondent's education level was Master's around 49.1%. Hence, the collected data were analyzed by the SPSS tool.

5. DATA ANALYSIS

5.1.1 Reliability

The most common mechanism to find the reliability of the data was achieved from the Cronbach Alpha. It was commonly used in the Likert scale questionnaire survey where determine whether the scale was reliable or not. The researcher suggested reliability was 0.5-0.6, but the appropriate or desirable was 0.7 or above. (BONETT & WRIGHT, 2014). The result of reliability analysis was 0.781, as shown in the below table.

| Case Processing Summary | | | |
|--------------------------------|----------|-----|-------|
| | | N | % |
| Cases | Valid | 300 | 100.0 |
| | Excluded | 0 | .0 |
| | Total | 300 | 100.0 |

a. Listwise deletion based on all variables in the procedure.

| Reliability Statistics | | | |
|-------------------------------|--|-------------|--|
| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | No of Items | |
| .781 | .783 | 19 | |

5.1.2 Correlation

The below correlated table comprised 19 questions which was rely upon the variables as Entertainment (E1, E2, E3), Infotainment (INF1, INF2, INF3), Irritation(IR1,IR2,IR3), Credibility(CR1,CR2,CR3), Effective SMS marketing(EMS1,EMS2,EMS3,EMS4) and Purchase intention(PI1,PI2,PI3). Thus in the Spearman correlation find that their monotonic relation between two continues or ordinal values. Therefore, in the monotonic relationship, the variables tend to move in the same direction but not at a constant rate. To find the calculation of the below table used the Spearman correlation where the correlated coefficient value range from -1 to +1. The larger values in the table show a significant relationship between the variables. The absolute value of 1 shows the perfect linear relationship. Hence, the -1 values show that the highest value of one variable is associated with the lowest variable of another variable, as shown in the below table. Similarly, the second-highest value of one variable is connected to another variable lowest values, and so on. Unless those values are close to zero has no significant relationship. Correlated variables increase or decrease simultaneously. Otherwise, the negative correlated value indicates that if one value was an increase, then another decreased. Whereas in the Sig. (2-tailed) values indicate that there were 0.01 fewer values means there was a significant relationship among the variables.

Correlations

| | | E1 | E2 | E3 | I1 | I2 | I3 | I4 | I5 | I6 | I7 | I8 | I9 | C1 | C2 | C3 | E1S | E2S | E3S | E4S | P1 | P2 | P3 | | |
|------|-------------|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| E1 | Coefficient | 1 | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | |
| | | relati | 0.97 | 0.02 | 0.01 | 0.09 | 0.06 | 0.07 | 0.08 | 0.07 | 0.00 | 0.01 | 0.01 | 0.01 | 0.08 | 0.06 | 0.05 | 0.08 | 0.07 | 0.06 | 0.07 | 0.04 | 0.01 | 0.01 | |
| | | on | 0.04 | 0.05 | 0.00 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.04 | 0.04 | 0.08 | 0.06 | 0.03 | 0.00 | 0.07 | 0.09 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | Coe | 0.00 | | | * | * | * | | | | * | * | | | | | | | | | | | | |
| | | ffi | | | | * | * | * | | | | * | * | | | | | | | | | | | | |
| | | ci | | | | | | | | | | | | | | | | | | | | | | | |
| | | en | | | | | | | | | | | | | | | | | | | | | | | |
| | | t | | | | | | | | | | | | | | | | | | | | | | | |
| | | Si | | | | | | | | | | | | | | | | | | | | | | | |
| | | g. | | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 2 | 3 | 1 | 3 | 8 | 8 | | | | |
| (2 | | 0 | 9 | 0 | 0 | 0 | 0 | 4 | 8 | 7 | 0 | 0 | 3 | 0 | 0 | 8 | 9 | 4 | 5 | | | | | | |
| - | | 5 | 3 | 0 | 4 | 4 | 2 | 1 | 8 | 2 | 4 | 6 | 8 | 6 | 2 | 6 | 9 | 6 | 9 | | | | | | |
| tail | | | | | | | | | | | | | | | | | | | | | | | | | |
| le | | | | | | | | | | | | | | | | | | | | | | | | | |
| d) | | | | | | | | | | | | | | | | | | | | | | | | | |
| E2 | Coefficient | . | 1 | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | |
| | | relati | 0.31 | 0.11 | 0.11 | 0.12 | 0.08 | 0.02 | 0.03 | 0.07 | 0.01 | 0.00 | 0.06 | 0.08 | 0.00 | 0.09 | 0.01 | 0.03 | 0.04 | | | | | | |
| | | on | 0.04 | 0.04 | 0.04 | 0.02 | 0.08 | 0.03 | 0.03 | 0.05 | 0.02 | 0.06 | 0.07 | 0.00 | 0.03 | 0.00 | 0.03 | 0.09 | 0.06 | 0.03 | | | | | |
| | | Coe | 0.00 | * | * | * | * | * | * | * | * | * | * | 7 | 4 | | | | | | | | | | |
| | | ffi | | * | * | * | * | * | * | * | * | * | * | | | | | | | | | | | | |
| | | ci | | | | | | | | | | | | | | | | | | | | | | | |
| | | en | | | | | | | | | | | | | | | | | | | | | | | |
| | | t | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | |
|---------|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| E3 | Si | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| | g. | 1 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 1 | 9 | 1 | 7 | 0 | 0 |
| | (2 | 0 | | 0 | 4 | 3 | 0 | 3 | 0 | 0 | 5 | 0 | 0 | 0 | 5 | 3 | 0 | 3 |
| | - | 5 | | 0 | 9 | 4 | 1 | 3 | 0 | 0 | 4 | 0 | 4 | 0 | 2 | 9 | 9 | 7 |
| | tai | | | | | | | | | | | | | | | | | |
| | le | | | | | | | | | | | | | | | | | |
| | d) | | | | | | | | | | | | | | | | | |
| | C | . | . | 1 | . | . | . | . | . | . | . | . | - | . | - | . | - | . |
| | or | 0 | 3 | . | 2 | 2 | 2 | 1 | 3 | 9 | 2 | 2 | 1 | . | 0 | . | 0 | . |
| | rel | 7 | 9 | 0 | 8 | 1 | 2 | 0 | 8 | 4 | 2 | 6 | 6 | 0 | 0 | 0 | 5 | 0 |
| ati | 5 | 4 | 0 | 6 | 5 | 2 | 1 | 2 | 3 | 3 | 0 | 2 | 9 | 5 | 9 | 9 | 0 | |
| on | | * | 0 | * | * | * | | * | * | * | * | * | 3 | | 2 | | 3 | |
| C | | * | | * | * | * | | * | * | * | * | * | | | | | | |
| oe | | | | | | | | | | | | | | | | | | |
| ffi | | | | | | | | | | | | | | | | | | |
| ci | | | | | | | | | | | | | | | | | | |
| en | | | | | | | | | | | | | | | | | | |
| t | | | | | | | | | | | | | | | | | | |
| I N F 1 | Si | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| | g. | 1 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 9 | 1 | 3 | 9 | 1 |
| | (2 | 9 | 0 | | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 1 | 5 | 9 |
| | - | 3 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 9 | 6 | 2 | 0 | 7 | 1 |
| | tai | | | | | | | | | | | | | | | | | |
| | le | | | | | | | | | | | | | | | | | |
| | d) | | | | | | | | | | | | | | | | | |
| | C | . | . | . | 1 | . | . | . | . | . | . | . | . | - | - | - | . | - |
| | or | 2 | 1 | 2 | . | 3 | 2 | 0 | 1 | 3 | 3 | 3 | 0 | . | . | . | 0 | . |
| | rel | 1 | 1 | 8 | 0 | 5 | 8 | 1 | 2 | 0 | 6 | 2 | 6 | 0 | 0 | 0 | 4 | 0 |
| ati | 0 | 4 | 6 | 0 | 2 | 6 | 5 | 0 | 7 | 2 | 9 | 8 | 0 | 5 | 8 | 2 | 3 | |
| on | * | * | * | 0 | * | * | | * | * | * | * | | 2 | 0 | 4 | | 2 | |
| C | * | | * | | * | * | | * | * | * | | | | | | | | |
| oe | | | | | | | | | | | | | | | | | | |
| ffi | | | | | | | | | | | | | | | | | | |
| ci | | | | | | | | | | | | | | | | | | |
| en | | | | | | | | | | | | | | | | | | |
| t | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | |
|---|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Si | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | | |
| | g. | 0 | 0 | 0 | | 0 | 0 | 7 | 0 | 0 | 0 | 2 | 9 | 3 | 1 | 4 | 5 | 5 | 3 | |
| | (2 | 0 | 4 | 0 | | 0 | 0 | 9 | 3 | 0 | 0 | 3 | 6 | 9 | 4 | 6 | 7 | 9 | 5 | |
| | - | 0 | 9 | 0 | | 0 | 0 | 2 | 7 | 0 | 0 | 0 | 9 | 6 | 0 | 7 | 6 | 6 | 9 | 2 |
| | tai | | | | | | | | | | | | | | | | | | | |
| | le | | | | | | | | | | | | | | | | | | | |
| | d) | | | | | | | | | | | | | | | | | | | |
| I | C | . | . | . | . | 1 | . | . | . | . | . | . | . | . | - | . | . | . | . | |
| N | or | 0 | 1 | 2 | 3 | . | 3 | 1 | 1 | 2 | 9 | 3 | 2 | 0 | 1 | . | 0 | 0 | 0 | 0 |
| F | rel | 9 | 2 | 1 | 5 | 0 | 2 | 8 | 4 | 4 | 1 | 1 | 1 | 6 | 1 | 0 | 3 | 2 | 4 | 8 |
| 2 | ati | 4 | 2 | 5 | 2 | 0 | 6 | 3 | 2 | 0 | 3 | 4 | 2 | 6 | 9 | 0 | 2 | 2 | 8 | 9 |
| | on | | * | * | * | 0 | * | * | * | * | * | * | * | | * | 9 | | | | |
| | C | | | * | * | | * | * | | * | * | * | * | | | | | | | |
| | oe | | | | | | | | | | | | | | | | | | | |
| | ffi | | | | | | | | | | | | | | | | | | | |
| | ci | | | | | | | | | | | | | | | | | | | |
| | en | | | | | | | | | | | | | | | | | | | |
| | t | | | | | | | | | | | | | | | | | | | |
| | Si | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| | g. | 1 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 8 | 5 | 7 | 4 | 1 | |
| | (2 | 0 | 3 | 0 | 0 | | 0 | 0 | 1 | 0 | 0 | 0 | 5 | 3 | 7 | 7 | 0 | 0 | 2 | |
| | - | 4 | 4 | 0 | 0 | | 0 | 1 | 4 | 0 | 0 | 0 | 3 | 9 | 1 | 9 | 7 | 7 | 6 | |
| | tai | | | | | | | | | | | | | | | | | | | |
| | le | | | | | | | | | | | | | | | | | | | |
| | d) | | | | | | | | | | | | | | | | | | | |
| I | C | . | . | . | . | . | 1 | . | . | . | . | . | . | - | . | . | . | . | . | . |
| N | or | 1 | 1 | 2 | 2 | 3 | . | 1 | 2 | 2 | 3 | 9 | 1 | . | 0 | 0 | 0 | . | 1 | 1 |
| F | rel | 6 | 8 | 2 | 8 | 2 | 0 | 0 | 0 | 0 | 3 | 3 | 5 | 0 | 2 | 1 | 4 | 0 | 1 | 3 |
| 3 | ati | 4 | 8 | 2 | 6 | 6 | 0 | 7 | 1 | 5 | 3 | 9 | 9 | 0 | 2 | 1 | 2 | 5 | 8 | 5 |
| | on | * | * | * | * | * | 0 | | * | * | * | * | * | 9 | | | | 4 | * | * |
| | C | * | * | * | * | * | | | * | * | * | * | * | | | | | | | |
| | oe | | | | | | | | | | | | | | | | | | | |
| | ffi | | | | | | | | | | | | | | | | | | | |
| | ci | | | | | | | | | | | | | | | | | | | |
| | en | | | | | | | | | | | | | | | | | | | |
| | t | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | |
|---|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Si | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | | |
| | g. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 7 | 8 | 4 | 3 | 0 | 0 | | |
| | (2 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 7 | 0 | 5 | 7 | 5 | 4 | 1 | | |
| | - | 4 | 1 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 6 | 5 | 1 | 1 | 0 | 3 | 1 | 9 | |
| | tai | | | | | | | | | | | | | | | | | | | |
| | le | | | | | | | | | | | | | | | | | | | |
| | d) | | | | | | | | | | | | | | | | | | | |
| I | C | . | . | . | . | . | 1 | . | . | . | . | . | . | . | - | - | . | - | | |
| R | or | 1 | 1 | 1 | 0 | 1 | 1 | . | 1 | 0 | 1 | 1 | 8 | 0 | 0 | 0 | . | . | 0 | . |
| 1 | rel | 7 | 2 | 0 | 1 | 8 | 0 | 0 | 4 | 8 | 9 | 3 | 8 | 1 | 5 | 1 | 0 | 0 | 1 | 0 |
| | ati | 5 | 3 | 1 | 5 | 3 | 7 | 0 | 3 | 7 | 7 | 9 | 6 | 3 | 1 | 1 | 0 | 1 | 4 | 0 |
| | on | * | * | | | * | | 0 | * | | * | * | * | | | | 1 | 6 | | 8 |
| | C | * | | | | * | | | | | * | | * | | | | | | | |
| | oe | | | | | | | | | | | | | | | | | | | |
| | ffi | | | | | | | | | | | | | | | | | | | |
| | ci | | | | | | | | | | | | | | | | | | | |
| | en | | | | | | | | | | | | | | | | | | | |
| | t | | | | | | | | | | | | | | | | | | | |
| | Si | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| | g. | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 8 | 3 | 8 | 9 | 7 | 8 | 8 | |
| | (2 | 0 | 3 | 8 | 9 | 0 | 6 | 1 | 3 | 0 | 1 | 0 | 2 | 8 | 4 | 8 | 7 | 0 | 9 | |
| | - | 2 | 3 | 0 | 2 | 1 | 4 | 3 | 3 | 1 | 6 | 0 | 0 | 2 | 6 | 9 | 9 | 6 | 2 | |
| | tai | | | | | | | | | | | | | | | | | | | |
| | le | | | | | | | | | | | | | | | | | | | |
| | d) | | | | | | | | | | | | | | | | | | | |
| I | C | . | . | . | . | . | . | 1 | . | . | . | . | . | . | . | . | . | . | . | . |
| R | or | 0 | 9 | 3 | 1 | 1 | 2 | 1 | . | 3 | 1 | 2 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 |
| 2 | rel | 8 | 3 | 8 | 2 | 4 | 0 | 4 | 0 | 9 | 3 | 0 | 7 | 2 | 0 | 2 | 3 | 1 | 4 | 5 |
| | ati | 5 | 3 | 2 | 0 | 2 | 1 | 3 | 0 | 3 | 1 | 3 | 9 | 0 | 9 | 8 | 3 | 9 | 3 | 6 |
| | on | | * | * | * | * | * | * | 0 | * | * | * | * | | | | * | | * | * |
| | C | | * | * | | | * | | | * | | * | * | | | | | | | * |
| | oe | | | | | | | | | | | | | | | | | | | |
| | ffi | | | | | | | | | | | | | | | | | | | |
| | ci | | | | | | | | | | | | | | | | | | | |
| | en | | | | | | | | | | | | | | | | | | | |
| | t | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | |
|---|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Si | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| | g. | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 6 | 0 | 7 | 0 | 0 |
| | (2 | 4 | 0 | 0 | 3 | 1 | 0 | 1 | 0 | 2 | 0 | 0 | 2 | 5 | 3 | 2 | 3 | 1 | 0 |
| | - | 1 | 0 | 0 | 7 | 4 | 0 | 3 | 0 | 3 | 0 | 2 | 7 | 9 | 1 | 1 | 8 | 3 | 7 |
| | tai | | | | | | | | | | | | | | | | | | |
| | le | | | | | | | | | | | | | | | | | | |
| | d) | | | | | | | | | | | | | | | | | | |
| I | C | . | . | . | . | . | . | . | 1 | . | . | . | - | - | - | . | . | . | . |
| R | or | 0 | 3 | 9 | 3 | 2 | 2 | 0 | 3 | . | 2 | 2 | 1 | . | . | . | 0 | 0 | 0 |
| 3 | rel | 7 | 7 | 4 | 0 | 4 | 0 | 8 | 9 | 0 | 3 | 4 | 5 | 0 | 0 | 0 | 8 | 1 | 6 |
| | ati | 6 | 5 | 3 | 7 | 0 | 5 | 7 | 3 | 0 | 2 | 0 | 4 | 7 | 0 | 8 | 4 | 5 | 8 |
| | on | | * | * | * | * | * | | * | 0 | * | * | * | 1 | 5 | 3 | | | |
| | C | | * | * | * | * | * | | * | | * | * | * | | | | | | |
| | oe | | | | | | | | | | | | | | | | | | |
| | ffi | | | | | | | | | | | | | | | | | | |
| | ci | | | | | | | | | | | | | | | | | | |
| | en | | | | | | | | | | | | | | | | | | |
| | t | | | | | | | | | | | | | | | | | | |
| | Si | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| | g. | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 9 | 1 | 1 | 7 | 2 | 2 |
| | (2 | 8 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 1 | 2 | 5 | 4 | 9 | 3 | 1 |
| | - | 8 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 7 | 7 | 8 | 3 | 4 | 8 | 9 | 3 |
| | tai | | | | | | | | | | | | | | | | | | |
| | le | | | | | | | | | | | | | | | | | | |
| | d) | | | | | | | | | | | | | | | | | | |
| C | C | . | . | . | . | . | . | . | . | 1 | . | . | . | . | . | . | . | . | . |
| R | or | 1 | 1 | 2 | 3 | 9 | 3 | 1 | 1 | 2 | . | 3 | 2 | 0 | 1 | 0 | 0 | 0 | 0 |
| 1 | rel | 0 | 1 | 2 | 6 | 1 | 3 | 9 | 3 | 3 | 0 | 6 | 0 | 6 | 2 | 1 | 4 | 1 | 9 |
| | ati | 4 | 2 | 3 | 2 | 3 | 3 | 7 | 1 | 2 | 0 | 6 | 2 | 4 | 9 | 5 | 0 | 1 | 4 |
| | on | | | * | * | * | * | * | * | * | 0 | * | * | | * | | | | |
| | C | | | * | * | * | * | * | * | * | | * | * | | | | | | |
| | oe | | | | | | | | | | | | | | | | | | |
| | ffi | | | | | | | | | | | | | | | | | | |
| | ci | | | | | | | | | | | | | | | | | | |
| | en | | | | | | | | | | | | | | | | | | |
| | t | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | |
|---|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Si | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | | |
| | g. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 7 | 4 | 8 | 1 | 1 | | |
| | (2 | 7 | 5 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 6 | 2 | 9 | 8 | 4 | 0 | 0 | | |
| | - | 2 | 4 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 6 | 6 | 4 | 9 | 4 | 5 | 2 | |
| | tai | | | | | | | | | | | | | | | | | | | |
| | le | | | | | | | | | | | | | | | | | | | |
| | d) | | | | | | | | | | | | | | | | | | | |
| C | C | . | . | . | . | . | . | . | . | . | 1 | . | - | . | . | . | - | . | . | |
| R | or | 1 | 2 | 2 | 3 | 3 | 9 | 1 | 2 | 2 | 3 | . | 2 | . | 0 | 0 | 0 | . | 1 | 1 |
| 2 | rel | 6 | 0 | 6 | 2 | 1 | 3 | 3 | 0 | 4 | 6 | 0 | 0 | 0 | 2 | 0 | 4 | 0 | 2 | 3 |
| | ati | 4 | 6 | 0 | 9 | 4 | 9 | 9 | 3 | 0 | 6 | 0 | 4 | 0 | 0 | 5 | 2 | 4 | 4 | 5 |
| | on | * | * | * | * | * | * | * | * | * | * | 0 | * | 7 | | | 0 | * | * | |
| | C | * | * | * | * | * | * | * | * | * | * | * | | | | | | | | |
| | oe | | | | | | | | | | | | | | | | | | | |
| | ffi | | | | | | | | | | | | | | | | | | | |
| | ci | | | | | | | | | | | | | | | | | | | |
| | en | | | | | | | | | | | | | | | | | | | |
| | t | | | | | | | | | | | | | | | | | | | |
| | Si | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| | g. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 7 | 9 | 4 | 4 | 0 | 0 | |
| | (2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 7 | 8 | 3 | 1 | |
| | - | 4 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 3 | 6 | 5 | 4 | 9 | 2 | 9 | |
| | tai | | | | | | | | | | | | | | | | | | | |
| | le | | | | | | | | | | | | | | | | | | | |
| | d) | | | | | | | | | | | | | | | | | | | |
| C | C | . | . | . | . | . | . | . | . | . | . | 1 | . | . | . | - | - | . | . | |
| R | or | 1 | 1 | 1 | 0 | 2 | 1 | 8 | 1 | 1 | 2 | 2 | . | 0 | 0 | 0 | . | . | 0 | 0 |
| 3 | rel | 5 | 6 | 6 | 6 | 1 | 5 | 8 | 7 | 5 | 0 | 0 | 0 | 3 | 9 | 0 | 0 | 0 | 2 | 1 |
| | ati | 8 | 7 | 2 | 8 | 2 | 9 | 6 | 9 | 4 | 2 | 4 | 0 | 8 | 5 | 7 | 2 | 2 | 8 | 3 |
| | on | * | * | * | | * | * | * | * | * | * | * | 0 | | | | 3 | 3 | | |
| | C | * | * | * | | * | * | * | * | * | * | * | | | | | | | | |
| | oe | | | | | | | | | | | | | | | | | | | |
| | ffi | | | | | | | | | | | | | | | | | | | |
| | ci | | | | | | | | | | | | | | | | | | | |
| | en | | | | | | | | | | | | | | | | | | | |
| | t | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | |
|-----------|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| E S M S 1 | Si | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | | |
| | g. | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 8 | 6 | 6 | 6 | 8 | | |
| | (2 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 9 | 9 | 9 | 2 | 2 | | |
| | - | 6 | 4 | 5 | 9 | 0 | 6 | 0 | 2 | 7 | 0 | 0 | 8 | 9 | 9 | 2 | 4 | 3 | 7 | |
| | tai | | | | | | | | | | | | | | | | | | | |
| | le | | | | | | | | | | | | | | | | | | | |
| | d) | | | | | | | | | | | | | | | | | | | |
| | C | . | - | - | - | . | - | . | . | - | . | - | . | 1 | . | . | . | . | - | . |
| | or | 0 | . | . | . | 0 | . | 0 | 0 | . | 0 | . | 0 | . | 3 | 3 | 2 | 2 | . | 1 |
| | rel | 8 | 0 | 0 | 0 | 6 | 0 | 1 | 2 | 0 | 6 | 0 | 3 | 0 | 2 | 2 | 3 | 6 | 1 | 0 |
| ati | 6 | 0 | 9 | 0 | 6 | 0 | 3 | 0 | 7 | 4 | 0 | 8 | 0 | 2 | 0 | 4 | 4 | 6 | 1 | |
| on | | 7 | 3 | 2 | | 9 | | | 1 | | 7 | | 0 | * | * | * | * | 8 | | |
| C | | | | | | | | | | | | | | | * | * | * | * | * | |
| oe | | | | | | | | | | | | | | | | | | | * | |
| ffi | | | | | | | | | | | | | | | | | | | | |
| ci | | | | | | | | | | | | | | | | | | | | |
| en | | | | | | | | | | | | | | | | | | | | |
| t | | | | | | | | | | | | | | | | | | | | |
| E S M S 2 | Si | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | | |
| | g. | 1 | 9 | 1 | 9 | 2 | 8 | 8 | 7 | 2 | 2 | 9 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | (2 | 3 | 0 | 0 | 6 | 5 | 7 | 2 | 2 | 1 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | |
| | - | 8 | 0 | 9 | 6 | 3 | 5 | 0 | 7 | 7 | 6 | 3 | 8 | 0 | 0 | 0 | 0 | 4 | 0 | |
| | tai | | | | | | | | | | | | | | | | | | | |
| | le | | | | | | | | | | | | | | | | | | | |
| | d) | | | | | | | | | | | | | | | | | | | |
| | C | . | . | . | - | . | . | . | . | - | . | . | . | . | 1 | . | . | . | . | . |
| | or | 0 | 0 | 0 | . | 1 | 0 | 0 | 1 | . | 1 | 0 | 0 | 3 | . | 2 | 2 | 1 | 4 | 4 |
| | rel | 7 | 8 | 0 | 0 | 1 | 2 | 5 | 0 | 0 | 2 | 2 | 9 | 2 | 0 | 8 | 1 | 8 | 2 | 0 |
| ati | 3 | 3 | 5 | 5 | 9 | 2 | 1 | 9 | 0 | 9 | 0 | 5 | 2 | 0 | 9 | 3 | 7 | 8 | 8 | |
| on | | | | 0 | * | | | | 5 | * | | | * | 0 | * | * | * | * | * | |
| C | | | | | | | | | | | | | | * | * | * | * | * | * | |
| oe | | | | | | | | | | | | | | | | | | | | |
| ffi | | | | | | | | | | | | | | | | | | | | |
| ci | | | | | | | | | | | | | | | | | | | | |
| en | | | | | | | | | | | | | | | | | | | | |
| t | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | |
|-----------|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| E S M S 3 | Si | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | |
| | g. | 2 | 1 | 9 | 3 | 0 | 7 | 3 | 0 | 9 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | (2 | 0 | 5 | 3 | 9 | 3 | 0 | 8 | 5 | 2 | 2 | 2 | 9 | 0 | 0 | 0 | 0 | 0 | |
| | - | 6 | 2 | 6 | 0 | 9 | 1 | 2 | 9 | 8 | 6 | 6 | 9 | 0 | 0 | 0 | 1 | 0 | |
| | tai | | | | | | | | | | | | | | | | | | |
| | le | | | | | | | | | | | | | | | | | | |
| | d) | | | | | | | | | | | | | | | | | | |
| | C | . | - | - | - | - | . | . | . | - | . | . | . | . | . | 1 | . | . | . |
| | or | 0 | . | . | . | . | 0 | 0 | 0 | . | 0 | 0 | 0 | 3 | 2 | . | 5 | 5 | |
| | rel | 6 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 0 | 1 | 0 | 0 | 2 | 8 | 0 | 4 | 4 | |
| ati | 0 | 0 | 9 | 8 | 0 | 1 | 1 | 8 | 8 | 5 | 5 | 7 | 0 | 9 | 0 | 7 | 9 | | |
| on | | 4 | 2 | 4 | 9 | | | | 3 | | | | * | * | 0 | * | * | | |
| C | | | | | | | | | | | | | * | * | | * | * | | |
| oe | | | | | | | | | | | | | | | | | | | |
| ffi | | | | | | | | | | | | | | | | | | | |
| ci | | | | | | | | | | | | | | | | | | | |
| en | | | | | | | | | | | | | | | | | | | |
| t | | | | | | | | | | | | | | | | | | | |
| E S M S 4 | Si | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | |
| | g. | 3 | 9 | 1 | 1 | 8 | 8 | 8 | 6 | 1 | 7 | 9 | 8 | 0 | 0 | 0 | 0 | 0 | |
| | (2 | 0 | 3 | 1 | 4 | 7 | 5 | 4 | 3 | 5 | 9 | 3 | 9 | 0 | 0 | 0 | 0 | 0 | |
| | - | 2 | 9 | 2 | 7 | 1 | 1 | 6 | 1 | 3 | 4 | 5 | 9 | 0 | 0 | 0 | 0 | 3 | |
| | tai | | | | | | | | | | | | | | | | | | |
| | le | | | | | | | | | | | | | | | | | | |
| | d) | | | | | | | | | | | | | | | | | | |
| | C | . | . | . | . | . | . | - | . | . | . | . | - | . | . | . | 1 | . | |
| | or | 0 | 0 | 0 | 0 | 0 | 0 | . | 1 | 0 | 0 | 0 | . | 2 | 2 | 5 | . | 5 | |
| | rel | 7 | 9 | 5 | 4 | 3 | 4 | 0 | 3 | 8 | 4 | 4 | 0 | 3 | 1 | 4 | 0 | 8 | |
| ati | 7 | 3 | 9 | 2 | 2 | 2 | 0 | 3 | 4 | 0 | 2 | 2 | 4 | 3 | 7 | 0 | 2 | | |
| on | | | | | | | 1 | * | | | | 3 | * | * | * | 0 | * | | |
| C | | | | | | | | | | | | | * | * | * | | * | | |
| oe | | | | | | | | | | | | | | | | | | | |
| ffi | | | | | | | | | | | | | | | | | | | |
| ci | | | | | | | | | | | | | | | | | | | |
| en | | | | | | | | | | | | | | | | | | | |
| t | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | |
|---|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Si | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | |
| | g. | 1 | 1 | 3 | 4 | 5 | 4 | 9 | 0 | 1 | 4 | 4 | 6 | 0 | 0 | 0 | | 0 | 0 | 0 |
| | (2 | 8 | 0 | 1 | 6 | 7 | 7 | 8 | 2 | 4 | 8 | 7 | 9 | 0 | 0 | 0 | | 0 | 0 | 0 |
| | - | 6 | 9 | 0 | 6 | 9 | 0 | 9 | 1 | 4 | 9 | 4 | 2 | 0 | 0 | 0 | | 0 | 0 | 0 |
| | tai | | | | | | | | | | | | | | | | | | | |
| | le | | | | | | | | | | | | | | | | | | | |
| | d) | | | | | | | | | | | | | | | | | | | |
| P | C | . | . | - | - | . | - | - | . | . | . | - | - | . | . | . | . | 1 | . | . |
| I | or | 0 | 0 | . | . | 0 | . | . | 0 | 0 | 0 | . | . | 2 | 1 | 5 | 5 | . | 1 | 1 |
| 1 | rel | 4 | 1 | 0 | 0 | 2 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 6 | 8 | 4 | 8 | 0 | 3 | 0 |
| | ati | 9 | 9 | 0 | 3 | 2 | 5 | 1 | 9 | 5 | 1 | 4 | 2 | 4 | 7 | 9 | 2 | 0 | 1 | 8 |
| | on | | | 3 | 2 | | 4 | 6 | | | | 0 | 3 | * | * | * | * | 0 | * | |
| | C | | | | | | | | | | | | | * | * | * | * | | | |
| | oe | | | | | | | | | | | | | | | | | | | |
| | ffi | | | | | | | | | | | | | | | | | | | |
| | ci | | | | | | | | | | | | | | | | | | | |
| | en | | | | | | | | | | | | | | | | | | | |
| | t | | | | | | | | | | | | | | | | | | | |
| | Si | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| | g. | 3 | 7 | 9 | 5 | 7 | 3 | 7 | 7 | 7 | 8 | 4 | 6 | 0 | 0 | 0 | 0 | | 0 | 0 |
| | (2 | 9 | 3 | 5 | 7 | 0 | 5 | 7 | 3 | 9 | 4 | 8 | 9 | 0 | 0 | 0 | 0 | | 2 | 6 |
| | - | 9 | 7 | 7 | 6 | 7 | 3 | 9 | 8 | 8 | 4 | 9 | 4 | 0 | 1 | 0 | 0 | | 3 | 2 |
| | tai | | | | | | | | | | | | | | | | | | | |
| | le | | | | | | | | | | | | | | | | | | | |
| | d) | | | | | | | | | | | | | | | | | | | |
| P | C | . | . | . | . | . | . | . | . | . | . | . | . | - | . | . | . | . | 1 | . |
| I | or | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | . | 4 | 1 | 3 | 1 | . | 7 |
| 2 | rel | 1 | 3 | 7 | 3 | 4 | 1 | 1 | 4 | 6 | 9 | 2 | 2 | 1 | 2 | 7 | 0 | 3 | 0 | 0 |
| | ati | 1 | 6 | 6 | 1 | 8 | 8 | 4 | 3 | 8 | 4 | 4 | 8 | 6 | 8 | 0 | 1 | 1 | 0 | 1 |
| | on | | * | | | | * | | * | | | * | | 8 | * | * | * | * | 0 | * |
| | C | | | | | | | | | | | | | * | * | * | * | | | * |
| | oe | | | | | | | | | | | | | * | | | | | | |
| | ffi | | | | | | | | | | | | | | | | | | | |
| | ci | | | | | | | | | | | | | | | | | | | |
| | en | | | | | | | | | | | | | | | | | | | |
| | t | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | |
|-------------|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P I 3 | Si | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | |
| | g. | 8 | 0 | 1 | 5 | 4 | 0 | 8 | 0 | 2 | 1 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | |
| | (2 | 4 | 1 | 9 | 9 | 0 | 4 | 0 | 1 | 3 | 0 | 3 | 2 | 0 | 0 | 0 | 0 | 2 | |
| | - | 6 | 9 | 1 | 9 | 7 | 1 | 6 | 3 | 9 | 5 | 2 | 3 | 4 | 0 | 3 | 0 | 3 | |
| | tai | | | | | | | | | | | | | | | | | | |
| | le | | | | | | | | | | | | | | | | | | |
| | d) | | | | | | | | | | | | | | | | | | |
| | C | . | . | . | . | . | . | - | . | . | . | . | . | . | . | . | . | . | 1 |
| | or | 0 | 1 | 0 | 0 | 0 | 1 | . | 1 | 0 | 0 | 1 | 0 | 1 | 4 | 2 | 4 | 1 | 7 |
| | rel | 1 | 4 | 7 | 5 | 8 | 3 | 0 | 5 | 7 | 9 | 3 | 1 | 0 | 0 | 4 | 8 | 0 | 0 |
| | ati | 0 | 3 | 2 | 4 | 9 | 5 | 0 | 6 | 2 | 5 | 5 | 3 | 1 | 8 | 9 | 4 | 8 | 1 |
| | on | | * | | | | | * | 8 | * | | * | | | * | * | * | | * |
| | C | | | | | | | | | * | | | | | * | * | * | | * |
| | oe | | | | | | | | | | | | | | | | | | |
| | ffi | | | | | | | | | | | | | | | | | | |
| | ci | | | | | | | | | | | | | | | | | | |
| | en | | | | | | | | | | | | | | | | | | |
| | t | | | | | | | | | | | | | | | | | | |
| Si | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | |
| g. | 8 | 0 | 2 | 3 | 1 | 0 | 8 | 0 | 2 | 1 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | |
| (2 | 5 | 1 | 1 | 5 | 2 | 1 | 9 | 0 | 1 | 0 | 1 | 2 | 8 | 0 | 0 | 0 | 6 | 0 | |
| - | 9 | 3 | 3 | 2 | 6 | 9 | 2 | 7 | 3 | 2 | 9 | 7 | 0 | 0 | 0 | 0 | 2 | 0 | |
| tai | | | | | | | | | | | | | | | | | | | |
| le | | | | | | | | | | | | | | | | | | | |
| d) | | | | | | | | | | | | | | | | | | | |

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

* . Correlation is significant at the 0.05 level (2-tailed).

c. Listwise N = 300

5.1.3 Factor Analysis

Factor analysis is a technique where reduce the large number and present into the few factor. From this way extract common variance into the variables and put it into the common score. Although index to all variables then further used for the analysis. There were several methods used, but the most commonly used method was the principal component method (Dumitrescu, Tichindelean, & Vinerean, 2013). The Below table shows the two test, which was KMO and Bartlett's test where the value of KMO is 0.596, which indicates that factor analysis is useful and generate factor. On the other hand, Bartlett's test of Sphericity is to identify the hypothesis of correlation matrix is an identity

matrix. The variables were unsuitable for structured detection, and significant values are less than 0.05 show the correlation exists between the variables.

| KMO and Bartlett's Test | | |
|--|--------------------|----------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | .596 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 4197.359 |
| | Df | 171 |
| | Sig. | .000 |

According to given below table 19 factors with Eigenvalues generate where the value was above one are extracted. After the cycle of factor by varimax method, the variables in the question are grouping in the 19 factors. Then Eigenvalues is Total Square of the factor loading by each factor account for the variance explicated by the factor. So in this study, the Eigen's values extracted by the above factor analysis, which was organized into the maximum variance. Thus the correlation between each factor lies between -1 to +1. Each value of a factor is the square of the variance, which is called Eigenvalues.

| Total Variance Explained | | | | | | | |
|---------------------------------|---------------------|---------------|--------------|-------------------------------------|---------------|--------------|-----------------------------------|
| Factor No. | Initial Eigenvalues | | | Extraction Sums of Squared Loadings | | | Rotation Sums of Squared Loadings |
| | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % | Total |
| 1 | 4.086 | 21.506 | 21.506 | 4.086 | 21.506 | 21.506 | 2.357 |
| 2 | 3.126 | 16.453 | 37.959 | 3.126 | 16.453 | 37.959 | 2.600 |
| 3 | 1.995 | 10.500 | 48.459 | 1.995 | 10.500 | 48.459 | 2.216 |
| 4 | 1.733 | 9.120 | 57.579 | 1.733 | 9.120 | 57.579 | 2.108 |
| 5 | 1.379 | 7.258 | 64.837 | 1.379 | 7.258 | 64.837 | 2.534 |
| 6 | 1.255 | 6.606 | 71.443 | 1.255 | 6.606 | 71.443 | 2.631 |
| 7 | 1.168 | 6.147 | 77.590 | 1.168 | 6.147 | 77.590 | 1.368 |
| 8 | 1.007 | 5.299 | 82.889 | 1.007 | 5.299 | 82.889 | 2.565 |
| 9 | .922 | 4.852 | 87.741 | | | | |
| 10 | .649 | 3.415 | 91.156 | | | | |
| 11 | .490 | 2.579 | 93.735 | | | | |
| 12 | .413 | 2.175 | 95.910 | | | | |
| 13 | .266 | 1.403 | 97.312 | | | | |
| 14 | .155 | .815 | 98.127 | | | | |

| | | | |
|----|------|------|---------|
| 15 | .105 | .550 | 98.677 |
| 16 | .093 | .489 | 99.167 |
| 17 | .074 | .388 | 99.555 |
| 18 | .048 | .250 | 99.805 |
| 19 | .037 | .195 | 100.000 |

Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

The component matrix table depicts 8 component loadings that are correlated with variables in the study. The possible correlation values lie in between -1 to +1. The blank spaces indicate that values below 0.3 do not consist of any correlation; therefore, it was excluded. By removing the cluster of values is easily analyzed the result SMS reliability was associated with Customer information received from the sales service. Hence, the entertainment factor with irritation finds negative values which show the negative correlation with an overall attitude among the customers. On the other hand, credibility, infotainment, and entertainment lies a positive correlation in component 1 and 5 and so on.

| | Component Matrix | | | | | | | |
|------|------------------|------|-------|-------|-------|-------|-------|------|
| | Component | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| CR2 | .630 | | | | -.517 | | | |
| INF3 | .603 | | | | -.533 | | | |
| E3 | .602 | | -.497 | | | | | |
| IR3 | .601 | | -.491 | | | | .301 | |
| IR2 | .587 | | -.538 | | | | -.360 | |
| CR1 | .584 | | .453 | | .385 | | | |
| INF2 | .566 | | .435 | | .414 | | | |
| E1 | .562 | | -.561 | | | | -.354 | |
| INF1 | .430 | | | -.356 | | | | |
| ESMS | | .715 | | | | | | |
| 3 | | | | | | | | |
| ESMS | .366 | .713 | | | | | .300 | |
| 4 | | | | | | | | |
| PI3 | .446 | .641 | | | | -.348 | | |
| PI1 | | .619 | | | | | .383 | |
| PI2 | .416 | .605 | | | -.320 | -.458 | | |
| ESMS | .338 | .524 | | | | | -.424 | .398 |
| 2 | | | | | | | | |
| IR1 | .338 | | .369 | .772 | | | | |

| | | | | | | |
|------|------|------|------|------|------|-------|
| CR3 | .399 | .345 | .750 | | | |
| ESMS | | | | .346 | .530 | -.365 |
| 1 | | | | | | |
| E1 | | | | | .382 | .536 |

Extraction Method: Principal Component Analysis.
a. 8 components extracted.

Rotated component matrix is referring to the loading, which was a key output of the principal component analysis. It gives the estimates of the correlation between each of the variables and estimated components (Samuels, 2016).

Thus, there was a strong correlation between purchase intention and the Effect of SMS advertising in the first component. Purchase intention1 was better representative because it has a high value. In the second component, PI2 and PI3 are highly correlated. The third component is highly correlated with IR3, and component four is correlated with INF3, and so on. Therefore it analyzed that more focusing towards the PI1, PI2, IR3, INF3, INF2, IR2, and E1 in six component, IR1, ESMS1.

| Rotated Component Matrix | | | | | | | | |
|---------------------------------|-----------|------|------|------|------|------|---|------|
| | Component | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| PI1 | .879 | | | | | | | |
| SMS | .810 | .334 | | | | | | |
| M4 | | | | | | | | |
| SMS | .770 | | | | | | | |
| M3 | | | | | | | | |
| PI2 | | .890 | | | | | | |
| PI3 | | .843 | | | | | | |
| SMS | | .707 | | | | | | .461 |
| M2 | | | | | | | | |
| IR3 | | | .901 | | | | | |
| E3 | | | .895 | | | | | |
| INF1 | | | .467 | | .337 | | | |
| INF3 | | | | .942 | | | | |
| CR2 | | | | .934 | | | | |
| INF2 | | | | | .941 | | | |
| CR1 | | | | | .933 | | | |
| IR2 | | | | | | .931 | | |

| | | |
|------|------|------|
| E1 | .931 | |
| IR1 | | .963 |
| CR3 | | .945 |
| ESMS | | .772 |
| 1 | | |
| E1 | | .589 |

From the above correlation matrix evaluation and factor analysis, it was analyzed that there was a positive correlation exist between consumer attitude and SMS advertisement. But in the factor of irritation is show negative due to the negative values received in the above data analysis. Therefore, the purchase intention factor indicates the consumer buying behavior, which means SMS marketing is a positive contribution toward the consumer buying decision. Therefore, H0 is rejected.

6. DISCUSSION AND CONCLUSION OF THE STUDY

This section analyzed the descriptive analysis of the study where find the demographic characteristics of the respondents. As mentioned earlier that 300 responses were collected from the primary data collection, and in this way, demographics features of the respondents described gender, marital status, and educational qualifications—the number of respondents consisting 300 where 25.66% are females and 74.33 % males. The highest respondent was received from a single status, whereas married are only 46.33%. In the comparison of education level, 58.66% were Masters whose highest response in the survey, 23.66% are bachelors have participated, and very few Ph.D. are responses in this survey.

Table 1: Demographics characteristics of respondents

| <i>Demographics</i> | <i>Number of Respondents</i> | <i>Percentage</i> |
|------------------------|------------------------------|-------------------|
| Gender | | |
| Male | 223 | 74.33 |
| Female | 77 | 25.66 |
| Total | 300 | 100 |
| Marital Status | | |
| Single | 161 | 53.66 |
| Married | 139 | 46.33 |
| Total | 300 | 100 |
| Education level | | |
| Bachelors | 71 | 23.66 |

| | | |
|---------|-----|-------|
| Masters | 176 | 58.66 |
| M.Phill | 40 | 13.33 |
| PhD | 13 | 4.33 |
| Total | 300 | 100 |

Table 2: respondent opinion about different variables of SMS marketing

| Variables | | Number of Respondents (%) | | | | |
|---------------------------|---|---------------------------|------|------|------|------|
| | | SD | D | N | A | SA |
| Entertainment | | | | | | |
| Q 1 | SMS marketing is entertaining | 3 | 13 | 25 | 21 | 38 |
| Q 2 | SMS marketing makes me pleasant and satisfied | 0.7 | 7 | 20 | 42.7 | 29.7 |
| Q 3 | SMS marketing is excitement and funny | 1 | 11 | 25.3 | 26.3 | 36.3 |
| Information | | | | | | |
| Q 1 | Effect of SMS marketing provides current information. | 5.3 | 16.7 | 23 | 26.7 | 28.3 |
| Q 2 | Does SMS marketing touches the area of interest | 6.3 | 15 | 27 | 24 | 27.7 |
| Q 3 | SMS marketing provides actual sales offer through SMS | 6.3 | 15.3 | 23 | 27.3 | 28 |
| Irritation | | | | | | |
| Q 1 | SMS content is generally irritating | 7.7 | 15 | 22 | 25 | 30.3 |
| Q 2 | Messages quantity are disturbing | 0.7 | 7.7 | 19.7 | 31.3 | 40.7 |
| Q 3 | SMS messages are annoying and waste of time | 1 | 10 | 26.3 | 25.7 | 37 |
| Credibility | | | | | | |
| Q 1 | SMS marketing provides useful personal information | 6 | 15 | 27.7 | 22.3 | 29 |
| Q 2 | SMS marketing is reliable for us | 6.3 | 14.7 | 24.3 | 26 | 28.7 |
| Q 3 | SMS messages grow our purchase intention | 8.3 | 15 | 24.3 | 20.7 | 31.7 |
| SMS marketing | | | | | | |
| Q 1 | SMS marketing destroyed the privacy of individual | 5.3 | 4.7 | 29.3 | 14 | 46.7 |
| Q 2 | Message provide useful personal information | 2.7 | 2.7 | 8 | 14 | 72.7 |
| Q 3 | Messages are shareable to another person | 12 | 6.7 | 13.7 | 12 | 55.7 |
| Q 4 | SMS advertising act as a reference for purchasing | 4.7 | 16.7 | 9.3 | 17.7 | 51.7 |
| Purchase intention | | | | | | |

| | | | | | | |
|-----|--|-----|------|------|------|------|
| Q 1 | I had the intention to receive SMS advertising | 4.7 | 16.7 | 32.3 | 14.7 | 31.7 |
| Q 2 | SMS has a positive influence on purchase intention | 7.3 | 10 | 30.7 | 4.7 | 47.3 |

In the above table 2 describe the opinion of the respondents on the effect of SMS marketing. As mentioned before the Likert scale was used in the data analysis where SD=strongly disagree, D=disagree, N=neutral, A=Agree, and SA=strongly agree. Therefore, the respondent provides valuable information about SMS marketing in which 38% strongly agreed that SMS advertising gives pleasure and entertainment, and 42.7% was agreed with it. In this way, 28.3% strongly agreed that SMS marketing gave me current information and the highest people believe the actual sales offer received from the SMS marketing. Hence, the credibility analysis 29% strongly agree with receiving personal information. The above table also confirms there was a positive correlation exist between purchase intentions towards SMS marketing, and it was also a reliable source of information. The irritating factor shows that 40.7% believe that SMS marketing tends to disturbing and 37% opinion was it caused a waste of time and only 15% of people disagreed with the irritation situation of SMS marketing. The usefulness of SMS marketing is getting when the person shares information/messages with others because 55.7% strongly agreed about it and 51.7% believed that SMS advertisement is helpful while customer decides for purchasing and using it as reference. Some of them think that it was just destroyed privacy where the personal information and contact number are taken for the approaching towards customers. While it was confirmed from the purchase intention or customer buying behavior that 47.3% strongly agreed that SMS marketing has positively influenced the buying decision. (Shadkam, 2016)

6.1 Conclusion

In the end, the objective of this study was to interpret the effect of SMS marketing on the attitude of Karachi residents and intention toward buying behavior. It was confirmed from the empirical data that four factors (entertainment, infotainment, irritation, and credibility) of consumer attitude is affecting SMS marketing. Some of the researchers believe that entertainment was an effective factor in the respondent's attitude towards SMS advertising. Thus, marketers need to enhance the entertainment of SMS marketing by adding various games and cash prizes to the consumer mobiles to keep attract and engaged from the product or services. Additionally, there was a need to fascinating the elements which going to be attractive for the consumers and caused to increase the responsive towards the SMS advertisement. Since, it was confirmed that entertainment, infotainment, and credibility were positive attitudes towards SMS advertising, whereas irritation has negatively influenced the customer attitudes and also consumer buying decision.

From the demographic perspective, it was indicated that married people have less intention towards the SMS advertng as compare to single status. Similarly, the impact of SMS advertising was more perceived by males because of the more usage of mobile phones as compared to females. But demographics data did not impact the consumer buying decision and attitudes towards SMS marketing. Moreover, people are less attracted towards SMS advertising is the reason of the nature of the content which was not clear and has no relevant information in it like offers, gifts, packages, and location by which customers gain brand trust. If the marketers take the cultural variables and technological infrastructure in SMS marketing, then there was a better chance to grab the market from it.

7. REFERENCES

- Almossawi, M. (2014). Effectiveness of SMS Advertising (A Study of Young Customers in Bahrain). *Global Journal of Management and Business Research: E-Marketing*, 14(4), 57-71.
- Althuwaini, M. S., & Habib, S. (2018, April). Mobile advertising and its impact on message acceptance and purchase Intention. *Journal of Business and Retail Management Research*, 12(3).
- BONETT, D. G., & WRIGHT, T. A. (2014). Cronbach's alpha reliability: Interval estimation, hypothesis testing, and sample size planning. *Journal of Organizational Behavior*. Retrieved from https://www.researchgate.net/publication/266798982_Cronbach's_alpha_reliability_Interval_estimation_hypothesis_testing_and_sample_size_planning
- Chaudhry, N. I., Bilal, A., & Rasool, Z. (2016, October). INFLUENCING THE ATTITUDE TOWARDS SMS ADVERTISEMENT: AN EMPIRICAL STUDY IN PAKISTAN. *PAKISTAN BUSINESS REVIEW*.
- Dumitrescu, L., Țichindelean, M., & Vinerean, S. (2013). Using Factor Analysis in Relationship Marketing. *Procedia Economics and Finance*, 6, 466-475. Retrieved from <https://www.sciencedirect.com/science/article/pii/S2212567113001640>
- Duzgun, F., & Yamamoto, G. T. (2016). SMS Promotion Effects on Consumer Behavior: A Turkish Case. *International Journal of Economics & Management Sciences*, 6(1), 1-7.
- Eshra, N., & Beshir, N. (2019, December). Effect of Consumer Attitude towards SMS Advertising and Demographic Features on Egyptian Consumers Buying Decision. *Journal of Marketing Management*, 7(2), 70-76. Retrieved from http://jmm-net.com/journals/jmm/Vol_7_No_2_December_2019/8.pdf
- Hongyan, L., & Zhankui, C. (2017). Effects of Mobile Text Advertising on Consumer Purchase Intention: A Moderated Mediation Analysis. *Frontier in Psychology*, 8(1022), 1-14. Retrieved from <https://www.frontiersin.org/articles/10.3389/fpsyg.2017.01022/full>
- Lin, H., & Chen, Z. (2015, October). Influence of SMS Advertising on Consumer Behavioral Intention. *Journal of Organizational and End User Computing*, 27(4), 25-42. Retrieved from https://www.researchgate.net/publication/281214218_Influence_of_SMS_Advertising_on_Consumer_Behavioral_Intention
- Nicolaas, G. P. (2016). THE INFLUENCE OF MOBILE MARKETING ON CONSUMER ATTITUDE STUDY AT STUDENT OF SAM RATULANGI UNIVERSITY. *Journal EMBA*, 4(1), 1221-1228.
- RAJESH, S., RAJ, G., DHUVANDRANAND, S., & KIRAN, D.-R. (, 2019). FACTORS INFLUENCING CUSTOMERS' ATTITUDE TOWARDS SMS ADVERTISEMENT: EVIDENCE FROM MAURITIUS. *Studies in Business and Economics*, 14(2), 141-159.
- Samuels, P. (2016). Advice on Exploratory Factor Analysis. 1-8. Retrieved from https://www.researchgate.net/publication/304490328_Advice_on_Exploratory_Factor_Analysis
- Shadkam, M. (2016). Consumer's attitude to receive and respond to SMS advertising. *International Journal of Business Information Systems*, 24(1).

Uddin, M. J., Kalam, A., Uddin, M. M., & Jaman, S. M. (2019). SMS Advertising and its Relationship with Customer Purchase Intention of Value Added Services. *Global Journal of Management and Business Research: E-Marketing*, 19(6), 45-51.