

# Mobile Text Messaging: An Emerging Market Tool

Dr. Omkareshwar Manappa

**Abstract-** With multiple technologies to choose from in the Mobile applications space, it's hard to clearly determine what tool is best for the job. One particular technology that's growing to meet the needs of enterprise users worldwide is SMS / MMS. With the growing popularity worldwide of text messaging, many companies have begun to look at the possibilities of the use of plain & multimedia text messages for both internal and external communication purposes, as well as alternatives to mobile applications to either provide a method to interact with end users in a device-agnostic fashion or gather / provide information such as promotions, or account information. This paper helps in explore some of the facts & figures about text messaging, textual revolution & business opportunities, how is text messaging being used by business, marketing & advertising, text message marketing revolution, mobile internet revolution & how small business can benefit, growing popularity of text messaging & scammers of it, business benefits of text messaging, pro's and con's of text messaging, this medium as well as some potential use cases for where SMS / MMS has proven to be useful.

**Index Terms-** Mobile, Texting, Website, Internet, Business, Customer.

## I. INTRODUCTION

SMS (or short message system) was developed in the mid-1980s as a method to exchange short 160 character message in order to be displayed and received on the mobile phone. Additionally the 2 way text messaging, which is also known as MO-SMS (Mobile-originated short Message Service), allows messages to be sent through the phone. Messages can be sent from one phone to another by addressing the message to the recipient's phone numbers worldwide. The technology used was based on a diagnostic method cell tower operators used to communicate tower status between operators and the towers themselves, but was later repurposed for commercial use, with the first text message occurring in 1992, on Vodafone's GSM network in the United Kingdom. The message was "Merry Christmas".

In 2008, 4.1 trillion SMS text messages were sent, making a SMS a massive global industry worth several billion dollars. It's grown in a number of different directions, including the ability to contact emergency services via text message in some countries, such as the United Kingdom and some parts of the US. With its popularity, it's also grown to include multimedia through the development of MMS. MMS was originally designed as a captive technology that would allow carriers to charge end users every time a photo was taken. However, in 2004, most carriers admitted that it wasn't making them a tremendous amount of money. China eventually led the revolution, in part due to the fact that there weren't many high powered computers owned, but MMS-capable phones spread rapidly. Since then, MMS has

exploded, leading to 1.3 billion active users and 50 billion MMS messages being sent as of 2008.

Since then, SMS / MMS have been used in every way possible to help communicate and interact with individuals. Though messaging technology has been hugely popular, with growing numbers every day, there are certainly draw backs to the technology as well due to its limitations around the type of interactivity a company can get, as well as mixed responses due to the overwhelming amount of messages exchanged by individuals, along with a good number of people that continue to not want to communicate via SMS or MMS.

In addition, messages can also be sent to mobile phones via special email address, carrier's website or special messaging software. Moreover, majority of mobile phones and carriers today allow users to send messages directly to an email address. Text messaging refers to sending short text messages from a mobile phone to other mobile phone users using the SMS standard.

This is becoming an increasingly popular form of communication outside of the United States. This is due to the economies of text messaging versus being online. The key advantage of text messaging in comparison to being online include a user's ability to text people independent of computer access, rather than only being able to communicate when logged on to the internet, it's less intrusive than a phone call, and it is less expensive than a phone call. Text messaging is a form of asynchronous communication.

## II. HISTORY

In today's society, text messaging is well known as sending an instant message to recipients through mobile phones. The world's First ever text message is believed to have been sent from a personnel computer (PC) to a mobile phone on the Vodafone UK Network in December 1992. However, AT&T (American Telephone and Telegraph) was among the first national carrier to offer text messaging in the states, beginning of October 2000.

In November 2001, AT&T wireless became the first national carrier, which allowed its customer to send text messages to any wireless phone, simply by knowing the recipient's phone number. The use of text messaging has been useful before and still today.

Young people started to use text message when it was introduced, especially when it is a cheaper communication tool to be used through mobile phone. Nonetheless, in 1999, views began to turn around dramatically and people have no relied on digital cellular for years. SMS has also achieved great success in both cases; it has been largely a youth phenomenon.

### III. PRESENT SCENARIO

The youth of today's generation grasps the internet and text messaging with little to no teaching. They know how to use these instruments even before they were taught. Text messaging is a tool that youth of today use to express who they are, both literally and figuratively. Furthermore, it is a definite way for youths to stay connected. It is also a way to cover up their negative personalities. In addition, SMS Technology allow users to order Movie tickets, Track stock quotes, check bank account balances, current reservations, bookings, etc 90% of SMS traffic has consisted of person to person messaging, much of it between teenagers. It also gives teenagers a new high methodology to pass notes in class. The SMS platform also allows them to send messages to groups of their friends simultaneously. Moreover, the youth are the group of people in the society who push the market forward and are asking for more. Although other groups of people also use text messaging, it is the young people of today that are dominant party who helps forward the mobile market. India's mobile industry is witnessing the highest growth in the world. As a consequence, SMS based mobile messaging is being increasingly adopted by Indian business as a new channel of communication. SMS is instant, personal and leaves an impact on the recipient.

These days' businesses, large and small are increasingly using a full range of communication methods including email, web and fax to enhance relationships with existing customers, as well as a low-cost means of acquiring new ones. Now a new communication mode, Text messaging – or Short Message service provides an additional and extraordinary opportunity for companies and organizations of all industries to differentiate themselves.

### IV. SOME FACTS ABOUT TEXT MESSAGING

- 65% of people send text messages from their mobile phone on a daily basis.47%
- 50% of people receive text messages from a member of their team/department/office.
- 47% of people receive text messages from a colleague.
- 36% receive text messages from a customer or client.
- 18% of people aged between 25 and 34 are most likely to send business texts.
- 71% of people use business texts for setting 'reminders of meeting and appointments'.
- 18% of people use business texts for 'notifying people about new meetings and appointments'.
- 14% of people use business texts for 'chasing up suppliers or new orders'.
- One third of the respondents 36% said that they receive text messages from a customer or client.
- 11% of the people receive text messages from suppliers.

### V. SOME FACTS AND FIGURES ABOUT TEXT MESSAGING USAGE IN THE U.S.

We hear a lot of feedback regarding text messaging from both ends of the spectrum. Some understand and are part of the mobile

messaging explosion in the U.S. and others need a little more convincing.

While we don't send 470 text messages per day (we have plenty of work to do around here), we love text messaging, understand that it might be better to provide some industry facts regarding text messaging usage and show why we're seeing more and more libraries embrace the mobile channel as an effective addition to reference services.

- Americans sent 1 trillion SMS text messages in 2008 (CTIA Semi-Annual Wireless Industry Survey)
- SMS text messaging advertising generates response rates 2-10x higher than Internet display ads. (Local Mobile Search Study)
- On average, Americans send and receive twice as many text messages as phone calls per month. (Nielsen Mobile)
- U.S. Teens (ages 13-17) sent and received an average of 1,742 text messages per month in Q2 2008 (Nielsen Mobile)
- In 2008, teens and twenty-something were by far the largest users of texting, coming in at 85%. In 2009, this continued to be true with teens at 94% and 20-somethings at 87%, but usage also increased for older age groups. Among those in their 40s, usage jumped from 56% to 64%, and for those in their 50s it jumped from 38% to 46%. (The Vlingo Consumer Mobile Messaging Habits Report, May 20, 2009)
- 60% of U.S. mobile phone users now use SMS, compared to 54% in a survey conducted last year. (The Vlingo Consumer Mobile Messaging Habits Report, May 20, 2009)
- Medical and Policy Experts Agree Wireless Technology Makes Healthcare More Efficient, Effective, and Patient-focused (CTIA Wireless Association).

### VI. TEXTUAL REVOLUTION AND BUSINESS OPPORTUNITIES

The phenomenal success of short message service (SMS) text messaging between mobile phones has created a new medium of communication between corporate business and its customers. The ability to 'text' has been shipped with every mobile phone since they came first became 'customer items' back in late 80's – but it wasn't until the mobile phone went from being an essential business tool to a ubiquitous youth fashion accessory that 'text messaging' began to reach its critical mass.

Now a technology that has become the popular and instant equivalent of the pen pal is starting to present serious business opportunities-and they look set to be long term. Text messaging has huge potential for use in business. Latest MDA figures show that over 90 million text messages are sent every day, almost double of the levels reached three years ago. One reason behind this staggering growth is that text messaging has moved beyond a 'teenage fad' to become an essential business tool.

This first step taken into mobile office arena, text messaging enables SMEs to conveniently and cost-effectively manage the

mobile work force on the move. In UK alone almost 1 billion text messages were sent in the first three months of 2002 – that’s about 20 messages each for every man, woman and child. Throughout Europe, the maelstrom of the world’s text messaging storm, a reported 900 million texts were sent in April 2002 alone. And it’s no longer everyone-banks, retailers, employment agencies, mortgage providers, marketers, B2B players – and anyone who appreciates immediacy and intimacy are dipping their toes in the text messaging water.

What was once a way for teenagers to send goofy messages to their friends has now boomed into something much more important in the world of marketing? According to a wireless industry trade group called CTIA, people send around 3-5 billion text messages per day. Unlike email messages, spammers have largely been kept out of text message inboxes due to strict regulations. Recent cell-carrier research states that 97% of text messages are opened, and most within the hour they’re received. What’s even more, people are connected to their mobile phones 24/7. All of this means it’s a goldmine for businesses.

This is a wonderful way to spread the word about your small business, but beware – spam is not taken lightly. For this reason, don’t hire a company to do your marketing that uses automated dialers.

#### VII. HOW IS TEXT MESSAGING BEING USED BY BUSINESS?

If you own a mobile phone, chances are, you know what a text message - or SMS, is. Where I live in Singapore, it’s not uncommon for users to chalk up between a few hundred to over a thousand (or two) worth of text messages per month.

In most parts of the world, operators have adopted a sender-pays model. This is actually quite important because a recipient has little control over the text messages that he or she receives. If the general model is that of charging users for text messages received, then users will demand tools or ways to curtail messages from senders.

Reed Executives sends 120,000 SMS messages per month to job seekers all over Europe.

Royal & Sun alliance has integrated text messaging with its call centre to support new electronic insurance services.

McDonalds experienced a 29% response rate on an SMS monthly game.

Airlines, Train and transport companies are using SMS services to alert their customers about their delayed services or Reminders.

Emergency services alert their response vehicles and notify essential information.

Email Alert: Many organizations use SMS to notify users when mail from specific senders arrives in their inbox- delivering the first 160characters of their e-mail to the mobile phone. WAP enabled phones can access the inbox and download the complete message, as well as reply on-line.

Banks intimate their customers regarding their Deposits, Savings, Balance, Loans, and any transactions through SMS.

The process of implementing hand-held mobile devices or Smart phones for the delivery guys to track the progress of a delivery. It will take a while before its ready though, and the current stop gap measure makes use of text messaging as a way to notify the delivery folks of pick-ups from the call center. The system is designed so that a text message is sent out automatically the

moment an order has been confirmed over the phone. There are actually a number of ways to design an enterprise-centric system for this purpose.

Ever received an e-mail newsletter? Assuming that there aren’t many textual details that need to be conveyed, an “information blast” via text messaging will work too. Unless your entire workforce is already toting BlackBerry handhelds, text messaging has the advantage of being even more “real-time” than e-mail. It also has a much wider reach since it’s more likely that staff will have a mobile phone than a personal e-mail account. Organizations such as private clubs, or churches, for example, can also use text messaging to keep its members updated of the latest offers or activities.

Some international courier companies such as FedEx and TNT have already starting implementing notifications via text messaging. Given the relatively low cost of text messaging, if done properly, this can be a way to gain competitive advantage or to give a superior customer experience on the cheap.

In Singapore, most of the major banks employ the use of text messaging as a tertiary authentication mechanism for miscellaneous transactions. If I were to add a new recipient in my Internet Banking facilities, the banking Web site will send me a text message with a time-limited security code to my mobile phone. Much like an e-mail verification procedure, the new recipient will only be added upon entering the correct security code. The popularity of text messaging is on the rise. This is further boosted by the generally interoperability of text messages across much of the world and the proliferation of mobile phones. Of course, the situation is slightly different in the in the United States where proprietary networks result in some incompatibilities. Still, the potential of text messaging due to its ability to reach end-users directly is virtually unlimited. The fact that it costs money to send a text messages also eliminates the majority of spam via this medium - preserving its attraction for some time to come.

#### VIII. THE BUSINESS BENEFITS OF TEXT MESSAGING

By now you’ve probably heard somewhere that mobile marketing is the next “big thing” and are wondering what are some of the **text message marketing benefits** for your business? While there are many, here are some of the biggest reasons:

1. **Text message marketing is permission based marketing.** People “opt-in” to get your original offer (a coupon, discount, free report, exclusive info, etc) and by doing so are giving you permission to market to them. They know that they are going to get kept up on your latest offers, promotions and sales, so they are expecting to hear from you. In fact, they want to hear from you! If they decide that they are no longer interested in hearing about your offers and promotions, then they can leave your list at any time. While leaving your list may sound like a bad thing to some, it is actually good because your list will always be kept current with real potential customers that are interested in your deals and promotions and your advertising budget will only be

spent on those who want to buy your products or services.

2. **SMS messaging is current and instant.** If you want instant results, you can't get much faster than mobile marketing. Over 90% of text messages are read within 15 minutes of you sending them so your marketing message is as up to date as possible. If your salon or restaurant is slow on a rainy Tuesday afternoon, just send out a message blast to your list and offer a special discount good only for the remainder of the day, or for the next 10 people to come in for an appointment or reservation. Whatever you think will persuade people to come down and do business now can be sent out and read within minutes.
3. **Every business can afford mobile marketing.** We have packages that will suit every size of business from small mom and pop shops to national level chains and franchises.
4. **SMS text message broadcasts are much more effective than traditional forms of mail marketing.** The redemption rate of mobile coupons is nearly 25 percent higher than printed internet coupons and roughly 10 times greater than mail or newspaper distributed coupons at a fraction of the cost.
5. **Text message marketing has a high return on investment for businesses.** The low cost per message broadcast combined with highly effective marketing makes for a great return on your advertising dollars.
6. **It's easily integrated with all your other current methods of marketing.** Mention your mobile campaign on all your other marketing campaigns such as print ads, radio spots, online content such as social media accounts, website, articles and videos and TV commercials.
7. **Reaching out to customers on a regular basis keeps your business fresh in their mind.** The more exposures your business has with a person, the more likely they are going to buy from you or refer you to their circle of friends.
8. **SMS marketing helps build better relationships and more loyal customers.** Mobile promotions can do more than just increase sales for your business; they can also create more meaningful, lasting relationships with your customers.
9. **It creates buzz around your products and services.** Your company will be seen as a leader in your industry for being one of the first for embracing this new effective technology. You'll be more up to date in the eyes of your customers and they will respect you for it.
10. **Convenience for customers.** People don't want to cut out coupons or download them and print them out. In

fact, mobile coupons are the #1 preferred ways for consumers to use coupons!

11. **Analyzing current marketing methods** .Use a variety of keywords to and use one for each marketing medium to determine how many leads are generated from each method. Analyze the effectiveness of each and determine areas to grow and which others need to be cut back or stopped all together.
12. **Find out what you're customers are thinking.** You can learn see exactly what your regular customers like most about your business using text surveys and then segment your list so you only send out ultra-targeted offers to people who have already raised their hand saying they love a particular product or service!
13. **Automate appointment reminders.** Save time and money by using text messages to remind patients / clients of their appointments.
14. **Everyone loves a contest!** Contests are easy to run with text message marketing and they're a great way to create excitement and drive more foot traffic into your business.
15. **Its GREEN!** Mobile coupons replace the need to print paper coupons. Save a tree and go mobile!

#### IX. GROWING POPULARITY OF TEXT MESSAGING

In this day and age, it is much more common to see people using text messaging rather than talking on their mobile devices. Just about anywhere you go, it's not hard to spot someone staring down at their devices and using their thumbs to intensely type their messages. In fact, SMS Text Messaging is a popular and widely accepted communication tool, used by so many people, from all walks of life, both young and old.

In the US, however, the appeal of SMS is even more limited. Although an SMS is even more limited? Although an SMS usually costs only USD 0.05(many providers also offer monthly allotments), only 13 messages were sent by the average user in 2003. The reasons for varied- many users have unlimited mobile to mobile minutes, high monthly minutes allotments, or unlimited service.

More over push to talk service offers the instant connectivity of SMS and is typically unlimited. Further the integration between completing providers and technologies necessary for cross-network text messaging has only been available recently. SMS is also typically an opt-in service in the US- thus sending a message is much less a guarantee of receipt than in other countries. However the recent addition of AT&T- powered SMS voting on the Television Program American Idol has introduced many Americans to SMS, and usage is on the rise.

In Europe, the Eurovision song contest organized the first pan-European SMS voting in 2002, as a part of the voting system (there was also a voting over the classical phone lines). In 2005, the Eurovision song contest organized the biggest tele voting ever (with SMS & phone voting).

In addition to SMS voting, a different phenomenon has risen in more mobile-phone-saturated countries. In Finland some TV

channels began “SMS Chat”, which involved sending sort messages to a phone number, and the message would be shown on TV a while later. Chats are always moderated, which prevents sending harmful material to the channel. The craze soon become popular and evolved into games, first slow-paced quiz and strategy games. After a while, faster paced games were designed to television and SMS control. Games tend to involve registering one’s nickname, and after that sending short messages for controlling a character on screen. Messages usually cost 0.05 to 0.86 euro’s a piece, and games can require the player to send dozens of messages.

Text messaging is also popular in Japan. However, it is known by different names depending upon the mobile service. Mobile email is usually the norm when sending messages between phones with different services, but between phones using the same service, text messaging is more prevalent.

The popularity of text messaging is continually climbing for the reason that it is instant and more personal than any other form of mobile communication. Due to this popularity, organizations are becoming increasingly interested and are utilizing this worldwide phenomenon to reach out to their target audiences. Whether it is used for increasing brand awareness, sending out critical information or simply utilizing it to distribute status updates and reminders, SMS text messaging can make a difference for their business.

A few wider publicized speed contests have been held between expert Morse code operators and expert SMS users. An increasing trend towards spamming mobile phone users through SMS has prompted cellular service carriers to take steps against the practice, before it becomes a widespread problem.

#### X. PRO’S & CON’S OF SMS/MMS – AN INDUSTRY PERSPECTIVE

This is a list of Pro’s & Con’s we gathered from our own experience with companies around the topic of SMS / MMS , as well as incorporating information we’ve gathered from enterprise customers, developers, and industry experts.

**PRO)** SMS / MMS is device agnostic Utilizing a simpler IDE without requiring an extensive background in a particular programming language, clients can build applications with minimal training in much less time than a native application

**CON)**Texting can be considered intrusive though texting is a very popular medium; it’s also a very personal and always present medium that some people find intrusive. Given the level of personalization that goes into texting, having a trusted relationship between you and the customer is important before going down that path, and giving clear direction to opt in & out.

**PRO)**It’s affordable to set up SMS / MMS campaigns Due to the relatively simple nature of both SMS & MMS technologies, setting up campaigns are relatively easy and affordable vs. other more costly solutions, such as a MEAP solution, to provide device-agnostic mobile communications to

end users. Not only that, but all carriers have very mature practices in helping companies set up campaigns

**CON)** Messaging campaigns traditionally have mixed results Based on conversations Slalom has had with companies around the topic of SMS / MMS solutions, there have been very mixed results in terms of the cost / benefit, and total feedback gained from campaigns. This was largely due to the highly qualitative results (ex: boosts level of informed consumer) that companies aimed for, but had a hard time measuring after the fact.

**PRO)** Development is relatively simple, given limitations of medium Due to relatively simplicity of texting, the bulk of the work is in gathering end points (i.e. customer phone numbers) and structuring the message for distribution. Given cost considerations for MMS, most companies Slalom has experience with have opted to focus on SMS, making it even simpler to launch the campaign.

**CON)** Interaction is limited due to limitations of medium Though the medium is relatively simple to develop and launch, this also means it’s difficult to exchange a great deal of information over SMS / MMS, meaning the interaction you have with your end users will also be limited. This is not only due to the text limit size of an SMS message, or data limitation of an MMS message, but also the need to keep messages to as small a size as possible to not confuse or mislead the end user. To get around this, most heavy texting is done in abbreviations such as “BRB” (be right back) or “LOL” (laughing out loud) but for corporate campaigns, this is never recommended due to large numbers of end users that may not be familiar with certain abbreviations.

**PRO)** BOTH SMS/MMS are mature technologies, with many vendors to choose from

Though SMS/MMS have been established technologies for a relatively short period of time, their growth and origins have made both technologies mature, and reliable means to exchange information to end users. So much so that when voice and data aren’t operating on a device, due to coverage issues, text messages will continue to work most times.

#### XI. CONCLUSION

Though text messaging certainly has both its ups and downs, there’s no denying that messaging is a very popular way to exchange information in a device-agnostic worldwide way. Companies have certainly had mixed success, but the first step is understanding how your business problem, as it relates to utilizing mobile devices, needs to be solved through better understanding the logistics and outcomes of both successful and unsuccessful SMS/MMS campaigns. As long as companies observe opt-in guidelines, SMS can provide a powerful tool for connecting with customers, particularly in emerging markets such as financial services, real estate or tourism, where SMS still surprises and delights users.

#### REFERENCES

[1] Engel, F. James David, T. Kollat and Roger, D.Blackwell (1968).Consumer Behaviour, Newyork; John Wiley & sons.

[2] Aaker, D.A (ed.) (1971). Multivariate Analysis in marketing theory and application. Belmont California: Wadsworth Publishing Co.

[3] Bennet, P.D & H.H.Kassrjian (1976). Consumer Behaviour. New Delhi: Prince-Hall of India.

[4] Paul Mah “Using text messaging in Business”.