

DATA, TECHNOLOGY & SOCIAL MEDIA: THEIR INVASIVE ROLE IN CONTEMPORARY MARKETING

ABSTRACT

Marketers have paid a huge price for their inability to decipher which trend has come to stay and which one is a fad. Such a challenge has jeopardized the survival of blue-chip brands, as marketers anticipated in vain the end of existing red ocean strategies. Essentially, the traditional marketing strategies associated with the success of well-known brands in the past are losing their relevance in the current context. There is the need to identify and understand modern trends and their implications to marketing strategy development. In light of this, this study examines fourteen (14) fundamental ‘game changing’ trends that are poised to impact the traditional practices and perceptions associated with marketing at the operational and strategic levels. The study presents the trends under three categories, the invasive role of technology, data, and social media, alongside looking at their impact on contemporary marketing. Each trend has been identified and analyzed based on in-depth interviews with industry experts as the primary source of data. Relevant data has also been given to present a holistic perspective on each trend.

Keywords: Data; Technology; Social Media; Contemporary Marketing.

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1 INTRODUCTION

Marketing as a discipline has evolved over the years, duly reacting to the different trends that emerged from the marketplace and the larger domestic and global milieu. It is the reconceptualization and the movement from a transactions based approach to that of building relationships with different stakeholders that has shaped the 21st century marketing domain. The focus on relationships ultimately redefined what constitutes marketing as a whole (Kotler (2011; Sheth and Parvatiyar, 1995). Economic behavior and social interactions emerged as two extreme independent determinants of market trends (Hedaa and Ritter, 2005) leading to a paradigm shift from mass marketing to relationship orientations. From the myth of the production era, the sophistication of marketing in present times reveals a clear advancement in contemporary marketing development.

Globally, consumer tastes and preferences have continued to evolve at a rather increasing rate; a vigorous facet throughout the journey of marketing. Significant shifts and growth in technology over the last couple of decades and the corresponding consumer adaptation in behavior and expectations must not be forgotten while assessing their impact on marketing a product or service (Hedaa and Ritter, 2005). Just as marketers have by themselves uncovered innovative ways of reaching customers, the latter have also exhibited the need for marketers' adaptation to the different trends that have emerged. Essentially, whether marketer initiated or customer preferred, the role of technology in contemporary marketing is imperative.

In contemporary times, consumer exploration of social media activities has achieved its climax in history. With close to half of the world population as combined active monthly users on various social media platforms, customers share ideas and experiences almost impulsively. Marketers have had to force their way onto such platforms in all possible ways. Nonetheless, key questions still remain unanswered. Would the domination of ecommerce and social media stand out as the only modern trends? What are the implications to marketing considering the usage of internet and information technology has up surged to over 380% since the 90's? Does the fact that close to half the world population is internet savvy have any implications with regards to the importance of big data to marketing decision making?

Such questions call the need for a closer examination of marketing which has rather evolved into a complex function. The traditional marketing

tactics and strategies which hype 'Customer Centricism' have been vehemently challenged. A much wider gap exists between individual consumer choices and preferences even under similar demographic clusters. The perceived gap between generation X and Y could not have gotten larger than initially anticipated. These uncertainties present huge opportunities and threats alike to the marketer and there is the need to identify and interpret various emerging trends in order to sustain the delivery of the required customer value at a profit. One way of capturing and analysing the paradigm shift can be in terms of three major developmental trend categories in the sphere of Technology, Social Media and Database Management, which is the purpose of this paper. Considering the manifestations each has in the realm of marketing strategy development, this study brings out the various implications as understood from in-depth interviews with experts of different industries. Marketers must pay attention to these key trends in order to deliver the value demanded by their respective target markets

2 METHODOLOGY

The present study includes both primary and secondary data sources. Primary data was gathered by in-depth interviews with experts, mostly executives, belonging to seven different multinationals. These multinationals represent seven different industries including data management, banking, information technology, social media marketing, retailing, PR, and strategic marketing. According to Wright (1996), the use of in-depth interviews on a small sample is highly suitable for "non-domestic" markets where vital information is sought from leading multinational corporations and experts. To complement primary data findings, secondary data was gathered from various sources including published industry reports, white papers, and journal articles. The data collected from the In-depth interviews was subjected to content analysis using NVivo. Findings from both primary and secondary data were integrated to critically analyze each trend.

3 SOCIAL MEDIA CENTRIC TRENDS

Social media centric trends have gained the reputation as the most dominant trends in the light of modern marketing advancements in modern marketing. The relevance of social media to marketing has excessively been discussed in isolation (Alarcon-del-Amo, et al., 2011; Chen, 2009; Erdogmus and Cicek, 2012; Vance, et al., 2009). Others like Constantinides and Fountain

(2008) associate social media exclusively as the new step in marketing development considering increased use of the internet. The present study nonetheless identifies social media as a single category of trends that impacts on contemporary marketing strategy development. Within the concept of social media, four individual trends are identified; these include crowdsourcing, social media marketing, social selling, and content marketing.

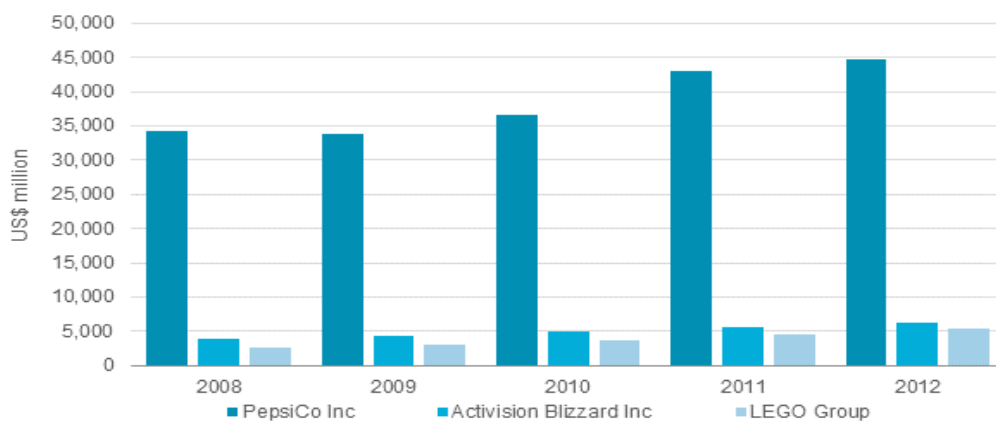
3.1 Crowdsourcing

The term “crowdsourcing” came into existence in 2005. Even though the concept had been practised in the past, it was not until Howe and Robinson of Wired Magazine identified certain strategies that were increasingly being adopted by organizations over the internet; such activities could be best explained as “outsourcing to the crowd” (Howe, 2009). Basically, the concept refers to the

strategy of placing an activity in the jurisdiction of the general public, usually over the internet. The concept has increasingly been acknowledged as similar to co-creation and open innovation (Constantinides and Fountain, 2008; Sharma, 2002)

Crowdsourcing is a trend that is gaining popularity in organizational, regional and even global landscapes. The IBM Jam, a very popular crowdsourcing activity, accrued a lump sum of over \$100 million as seed investment for launching IBM new businesses in 2006 alone. The Jam engaged over 150,000 participants from 104 countries on a single platform to reshape old IBM values which had been in existence for over 100 years (IBM Jam Events, 2014). The Jam continues to be used by IBM in various areas of economic and social platforms where necessary. Typically used by companies in the FMCG industry (Porter, 2014), other corporations like PepsiCo, Lego, and Activision Blizzard Inc. have benefited from crowdsourcing in the past (Figure 1).

Figure 1 - Global Company Value Sales for selected companies: 2008-2012



Source: Porter, R. (2014). Crowdsourcing Benefits True FMCG Toy Companies - Analyst Insight from Euromonitor International. [Online] Available at: <http://blog.euromonitor.com/2014/03/crowdsourcing-benefits-true-fmcg-toy-companies.html>

PepsiCo Inc.’s “Do Us A Flavor” campaign has made fortune sales out of this approach to promotions of the Walkers brand since 2008. LEGO Inc. adopts crowdsourcing approaches by taking ideas from the public, publishing them and offering its authors a percentage of sales proceeds. Activision Bizzard Inc. on the other hand could not have applied the concept to its online interactive entertainment better. The contribution of crowdsourcing to the value creation process in the field of marketing has been adequately established. Even though others like GAP experienced an epic failure in crowdsourcing ideas over Facebook with regards to a redesign of the company logo (Isaac, 2010), marketers must note that and be conscious of type and platform of crowdsourcing activity in order to be successful.

Ultimately, effectiveness of crowdsourcing lies in the ability to quickly implement and incorporate responses and ideas from the crowd in the marketing process. It must also be noted that crowdsourcing has earned a positive association with regards to its ability to meet marketers’ expectations by engaging online workers. Fundamentally, crowdsourcing help pull ideas, funds, and other synergies from multiple contributors without geographical boundaries; marketers can avail the thoughts, skills, and efforts of the crowd, who mostly make up customers, towards marketing decision making.

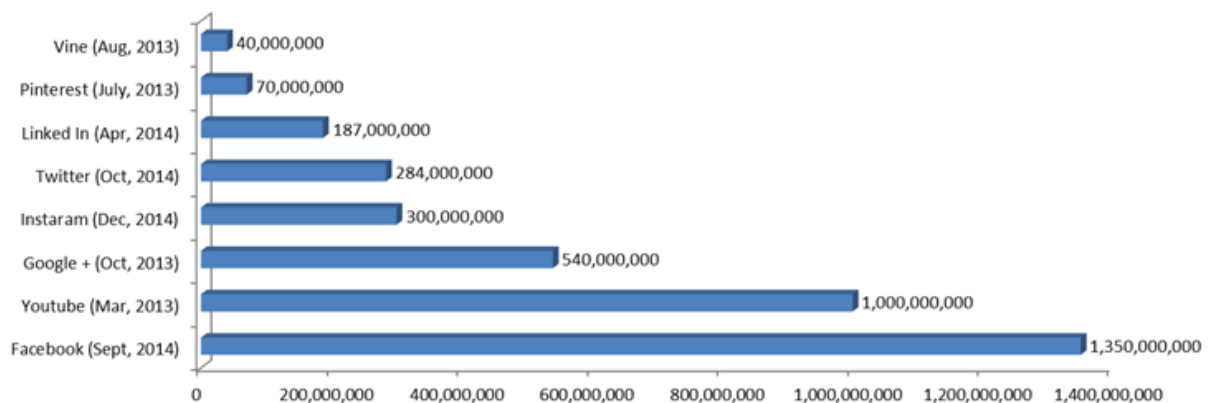
3.2 Social Media Marketing

Social Media Marketing represents another trend which depends on social media as a marketing concept. The trend has evolved into a core aspect of daily lives. With over 860 million active daily users and 1.35 billion active monthly users on Facebook alone (Facebook, 2014), organizations had never been offered such opportunity to meet consumers on a single platform so easily and cost effectively. In Social Media Marketing, organizations engage in a three way communication and information is considered more reliable compared to one-way advertisements and better still two way interactions.

Primarily, presence on social media platforms are intended to engage customers, increase website traffic, and increase the number of people who subscribe to company feeds.

Social media marketing in this context may refer to the advertisement of products and services to interest groups over the internet where all members are allowed to subscribe, comment or share ideas. Figure 2 illustrates monthly active users of top social media platforms. A large number of new organizations in addition to some old and large ones have come to depend solely on social media marketing towards reaching scattered audiences more effectively.

Figure 2 - Active Monthly Users on major Social media platforms & report dates



Source: Statistic Brain. (2014). Facebook Statistics | Statistic Brain. [Online] Available at: <http://www.statisticbrain.com/facebook-statistics/>

Their role in forwarding causes and events is unquestionable; the United States Presidential Election 2008 is a testament to that effect with one of the most efficient and effective presidential social media campaigns (Rutledge, 2013). To add to this, it is without doubt that social media marketing is increasingly gaining popularity, with over 86% of marketers indicating that it is important for their businesses (Stelzner, 2014). The concept is used by marketers to enhance brand awareness, communicate with customers/prospects directly, and launch new products alongside many other resourceful moves. Marketers must note that it is far easier to measure and quantify marketing results by assessing click-through rates, number of likes, number of followers on the company's fan page, and other data on interaction with target audiences.

Such results offer marketers the ability to analyze and interpret the impact of marketing efforts towards justification of returns on marketing investments. In addition to the ability to clearly measure results, insights are collected by marketers,

analyzed, interpreted, and used for future decision making. Measurable impact also makes companies less hesitant in allocating budgets for promotional purposes.

3.3 Social Selling

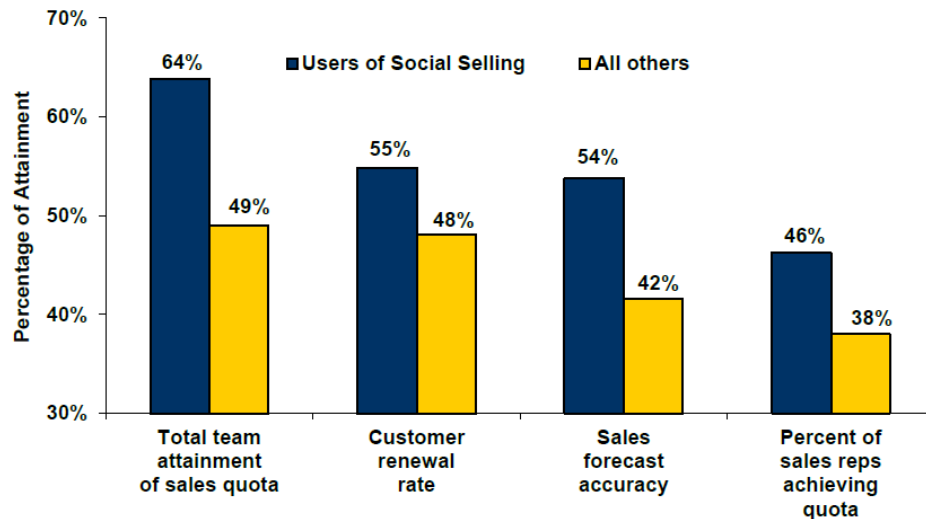
Social selling, even though sometimes considered as social media marketing, is nonetheless a major trend on its own. Hersant (2011) definition of social media marketing as "targeting specific customers and engaging them with something that is direct, memorable and meaningful to them" (p.21), would best be referred to as social selling. The concept refers to the situation where marketers are able to view the profile of their audiences, identify key elements and unique associations which make them good prospects, and then approach them with carefully targeted "warm" messages. Social selling is gradually replacing outbound marketing and cold calling which is looked down upon by many in both academia and professional worlds. Social selling has also been defined as the use of social media for the

purpose of contacting customers and prospects that are likely to be interested in buying the company's product (Crosman, 2013).

According to Hubspot.com (2014) social media has close to 100% higher lead-to-close rate

than outbound marketing. *Figure 3* illustrates that sales teams' performance is enhanced by social selling.

Figure 3 - Current Performance Benefits of Social Media



Source: Aberdeen Group, (2012) Social Selling: Leveraging the Power of User-Generated Content to Optimize Sales Results. Boston, M.A: Aberdeen Group.

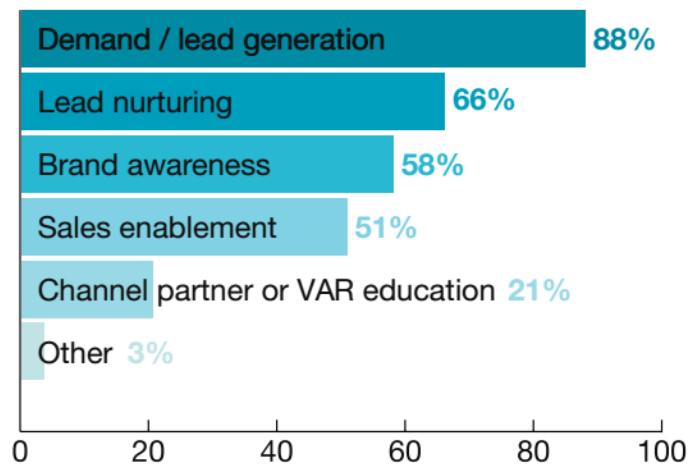
Facilitators include the determination of prospects' needs by analyzing their social media profile prior to approach, or using sponsored social media posts targeted to a specific set of people based on demographics, (i.e. gender, relationship status etc.). Targeting may as well be based on job position and other attributes that predict positive purchasing behavior. Further investigation has proven that social selling is becoming increasingly important in strategic marketing development. Evidence that organizational performance is associated with social selling is well established (Aberdeen Group, 2012). As this trend gains more popularity, it is expected that social selling would help create warm foundation for face-to-face personal selling approaches. It would attract a higher portion of future marketing budgets and make cold calling highly irrelevant. It presents an appropriate starting point to initiate online conversation and book appointment for personal selling attempts.

3.4 Content Marketing

Content Marketing is another trend with high dependence on social media. Here, marketing

activities involves the publishing of content with the purpose of engaging prospects. Nielsen (2014) categorized content into three types; the first is expert content and relates to information extracted from third-party sources and are dedicated to product category in focus; the second is user reviews and is mainly extracted from major online forums and specialty retailer platforms; the last is branded content and this relates to information taken from the official websites of the exact products in focus. Each content type may be evaluated with respect to the three stages of influence in the consumer purchasing process (i.e. Product Familiarity, Product/Brand affinity, and purchase consideration) (Nielsen, 2014). A Report conducted by Nelson from this perspective indicated that overall expert content is most effective of the three types.

A report issued in conjunction with Oracle Inc. indicates that more than 51% of marketers are already producing content for sales (Edouard et al., 2014). About 88% of such content is targeted at demand and lead generation, 66% is directed at lead nurturing. This is followed by brand awareness and sales establishment in that order (*Figure 4*).

Figure 4 - Marketing Campaigns for which content are most produced

Source: Edouard, N., Batista, A. & Facini, S. (2014) The state of content marketing in 2014. Toronto, ON: LookbookHQ

In present times, there is a huge amount of content on numerous platforms such that consumers observe the category of content to satisfy level of brand awareness; content category may as well inform brand attitude of consumers. The consideration of the influence of content on consumers and other stakeholders in marketing strategy development is of utmost importance. Despite their contribution to the sales function, the authenticity of the three content categories must be acknowledged by marketers. Marketers may however note that providing audiences with entertaining content rather than conventional brand informational advertisements may increase the level of involvement. Sequentially, as target audiences engage with and communicate more frequently with a brand with attention to one or more of these categories develops, stronger bonds are established.

4 TECHNOLOGY CENTRIC TRENDS

Aside social media centric trends, trends in this section have high dependence on technology. Even though the optimal potential of these technology-related trends have not been realized, considering the fact that technology is increasing at a rapid rate in contemporary times, such trends must not be undermined. According to industry discussions, eight such trends were identified.

4.1 Avatars

Hemp (2006) defines avatars as “any visual representations of users in an online community”. Avatars basically exist in virtual environments where they are created for the purpose of social and/or competitive interaction among users

(Melancon, 2011). Marketers use virtual worlds to engage customers and increase involvement. The average duration of interaction with a brand advertisement in virtual worlds (10 minutes) has been proven to be much higher than that of conventional online advertising (12 seconds) as mentioned by Melancon (2011).

A typical example of a global company with exceptional application of this concept is Nike, Inc. In the virtual world Nike’s virtual shoes allow users to run faster than other avatars. This contributes to consumer knowledge and helps in integrated communication of message that significantly results in equal awareness and attitudes as offline communication channels. It also helps enhance positioning strategies of Nike, Inc. in the minds of consumers. However, it must be noted that marketing in these virtual worlds is not entirely targeted towards profit generation. In some cases avatars have been adapted for non-profit interests or social marketing engagement purposes. An event set by American Cancer Society in Second Life “Relay for Life” featured 315 avatars walking in a virtual course, lighting luminaries and raising virtual money which amounted to an estimated \$5,000 in real-world cash; this money was later donated to the organization’s cancer fundraising cause (Hemp, 2006).

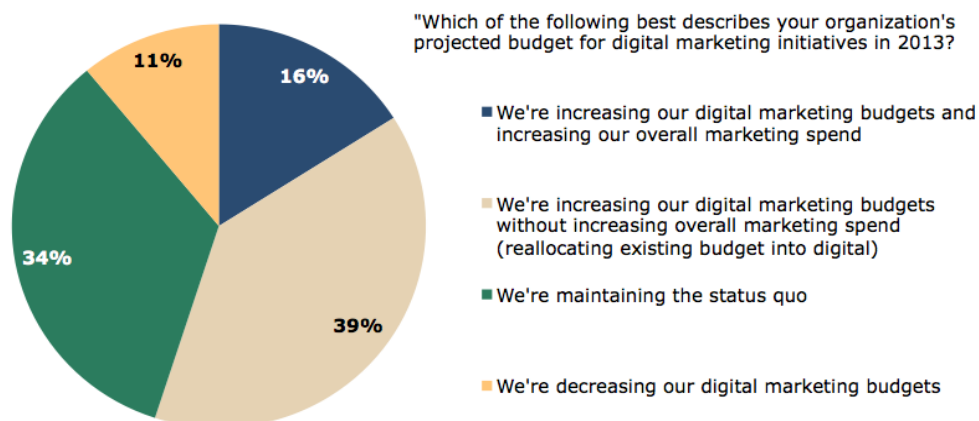
The potential of avatars as critical aspects of strategic digital marketing is yet to be realized. Avatars may provide an avenue for people to report to work, go shopping, or even go touring. A wide range of normal life activities may occur online, represented by avatars. Personalized messages may be exchanged on this platform and marketers may understand customers better due to longer interactions with brands in virtual spaces. Ultimately, marketers would gain more insight into

consumer behavior; moreover, behavior can be easily tracked as opposed to real life scenarios. Marketers are able to assess how customers would interact to stimuli based on interactions in virtual worlds. Marketers can make good use of online consumption strategies as they are highly capable of occurring on the virtual platform. In a conventional online shopping scenario, the customer may be deprived of the social aspect of interactive shopping; however, virtual worlds provide people with the opportunity to shop with friends and try out different outfits in virtual shopping malls (Hemp, 2006), not to talk of all the time and convenience at their disposal. Essentially, marketers may be able to better relate to customers on a personalized level.

4.2 Phygital Marketing

The term “phygital” describes the concept of using technology to connect the physical and digital worlds in an attempt to create unique interactive experience for customers (Phygitalien.com, 2014). As opposed to exclusive multichannel marketing, both physical and digital channels are synchronised to produce best experience to customers. With majority of companies (55%) investing into digital marketing, the bridge between physical and digital marketing is getting closer (*Figure 5*). It must be noted however that the concept of phygital marketing to a good extent depends on the digital aspect of the entire marketing communication function. It may therefore be observed that a consistent increase in investment towards digital marketing will gradually unveil the true strength of phygital marketing.

Figure 5 - Digital marketing budget growth



Source: Marketing Charts (2013). 4 in 10 Global Marketers Reallocating Budgets to Digital. [online] Available at: http://www.marketingcharts.com/wp/uncategorized/4-in-10-global-marketers-reallocating-budgets-to-digital-27493/?utm_campaign=newsletter&utm_source=mc&utm_medium=textlink

One possible scenario of phygital marketing is a live in-store display of the number of followers/likes of a retailer on one or more social media platforms. Number of followers and “likes” has already found its way onto TV advertisements, billboards, flyers, and are gradually finding their way onto more “physical platforms”. Phygital marketing may be seen as focusing more on the experience rather than the final product purchase intention.

While some authors have argued that e-stores will not overthrow physical shopping due to the fact that people enjoy the experience of physical shopping and may choose it over the convenience and affordability of e-stores, marketers must note

that phygital marketing may provide a more enjoyable experience to the customer regardless in physical shopping experiences of any product. The concept is poised to transform the traditional marketing mix elements which focus on the product, price, promotions and place, into one that creates an enjoyable experience by associating digital aspects of marketing with the physical experiences.

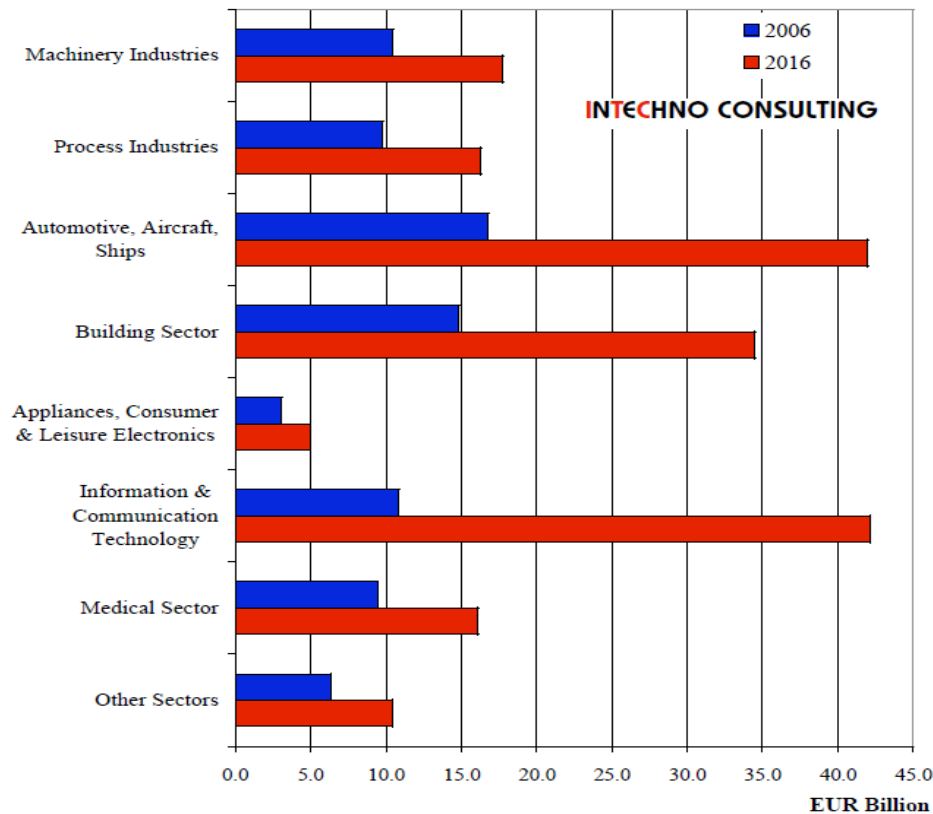
4.3 Sensors Marketing

Sensors’ marketing is a new concept that refers to the use of sensors, mainly in smartphones, to collect data about the customers. A typical scenario is the ability of electronic systems to use

global positioning systems (GPS) to collect data on customer usual driving destinations, duration of the drive, and time of drive. This data then informs marketing decisions in diverse areas of consumer preferences. Smartphones are currently equipped

with many sensors (e.g. location sensors, heat sensors, light sensors, position sensors, scanners, identifiers etc.). Market projections place demand for sensors in mobile devices highest in comparison with other industries (*Figure 6*).

Figure 6 - Analysis and Forecast of Open World Market for Sensors until 2016: Subdivision by Major Industries



Source: Intechno Consulting (2012) Sensors Markets 2016. [Online] Available from: www.intechnoconsulting.com/ic/press/details/e-press-se2016-us.pdf

Data presented with regards to sensors attributable to the information and communication technology industry supersedes other industry demands for sensors; 22.9% is the anticipated expansion in demand until 2016 (Intechno, 2012). This implies more data collection on consumer habits in the future, providing marketers an insight into customer behavior for marketing strategy development. Ultimately, marketers would know their consumers in the same magnitude as gathered over their devices. This data would greatly enhance individualized marketing efforts. As an instance, T3, a creative agency, has already made headway with its Scout application which analyses and transforms mobile data (data analyzed include location, time, weather, speed, and orientation) to useful marketing indicators. The application also integrates with the company's business systems including the customer relationship management (CRM) and enterprise resources management systems (ERP) to deliver the most relevant experience for each customer in T3.

Based on this concept Scout uses location data to predict when the customer is going to visit the store and what is he/she planning to buy (T3, 2013).

Concerning implications of this trend, as Mehta (2014) explains, if an altimeter sensor (a device that measures elevation/altitude) finds its way into smartphones, marketers would not only be able to determine the location of customers via GPS, but also on which floor of a building/mall. Near field communication and Bluetooth technology are as well playing a very important role in sensor marketing applications (Nearfieldcommunication.org, 2014). Sensors may determine mood, facial expression may be detected via camera, or the speed at which customer may be moving may predict mode of transportation. Other sensors like smart noses and tongues may not just determine flavor, they may serve as quality control measures for certain products as mentioned by Intechno (2012).

4.4 Search Engine Optimization (SEO)

Search Engine Optimization (SEO), also referred to as search engine positioning, is the process of identifying factors on a webpage which would enhance ranking in appearance on search engines. In SEO, search engine accessibility to content is fine-tuned to the main elements of a website so as to achieve the highest possible visibility when a search engine responds to relevant queries. Search engine optimization aims at achieving good search engine accessibility for webpages, high visibility in a search engine result, and improvement of the chances the webpages are retrieved. Different search engines have different ranking algorithms and SEO presents a difficult and constantly evolving task to marketers. According to Thurow (2003), site components that drive traffic include keywords, backlinks, and popularity.

Millions of search results compete for the first few ranks on various search engines upon entry of an inquiry (Grehan and Pettijohn, 2009). Marketers must prioritize the positioning of their website on the first page of the search query results in order to set their site apart from competition. Gaining attention on first page results must be critical for marketers as investigations and studies have proven that web surfers select one or more of such outcomes only from the search engine report page (SERP) (Kammerer and Gerjets, 2012). To add to this, surfers who do not find what they need on the first page would rather search another query for more information than move to subsequent pages of the results. Google remains on top of the ladder with over 78% of search queries numbering over 1.2 trillion searches a year (Internet live stats, 2014). There are distantly followed by Baidu (9.9%), Yahoo (5.6%), Yandex, and Microsoft in that order. Customers would “google” keywords like “best restaurants in Dubai”, and the Marketer must ensure that these keywords are present in web content which has been appropriately indexed by the search engine. SEO basically equips marketers by placing them on top of search results organically. SEO may be performed to target local or international audiences.

Search engines are increasingly been used as a platform for purchase decisions, especially in geographical areas where consumers are not very familiar with. According to Kammerer and Gerjets (2012) most customers search for the credibility of products online before purchase, about 81% of customers also search online before making high involvement purchases (RetailingToday, 2013). The presence of businesses online had never been so important. Marketers who find themselves on page one of SERP have a higher probability of benefiting the purchase of the wandering consumer.

4.5 Permission Marketing

Giving consent to a marketing communication attempt is an action which is conscious in nature. Through permission marketing, marketers break the barriers of being strangers and provide a platform to initiate friendship with consumers. The core of permissions marketing lies in the fact that interaction with customers is preceded by permission to communicate. As Godin (2007) puts it, permissions marketing is anticipated, personal, and relevant, and this is gaining popularity in today’s highly individualized marketing communication strategies. In the current decade, mobile permission marketing is becoming imperative. The invasion of marketers onto the mobile phones of customers is increasingly establishing permissions marketing as fundamental to marketing communications. As opposed to the traditional modes of communication like television and radio advertisements, marketers now avail the option to be permitted to advertise during promotional attempts. Customers have the option of restricting or skipping applications from gaining access to profile information. Customers are increasingly respecting exchange of cards at an exhibition or similar circumstance, at least, before email conversations and “cold” emails are treated as spam. Network providers are as well becoming conscious of the need to obtain permission to send key promotional messages to target audiences.

An instance where permissions played a very important role to marketing strategy development can be witnessed in large mobile market campaign that was held by McDonalds in 2001. This campaign was held in conjunction with *12snap*, an entertainment and mobile marketing company with renowned presence in Italy and United Kingdom. The campaign had three specific objectives; increase awareness, promote key products, and upgrade database of mobile users. Launched through in-store flyers, customers were encouraged to opt in by sending an SMS message to McSMS short code. Customers who subscribed were then entertained with mobile prizes, interactive quizzes, and tactical time-sensitive SMS promotions. The trade press reports that the campaign used a combination of cell broadcasting and SMS, and thus was able to push engaging sound files and media messages to customers. Through this platform, McDonald generated more than 220,000 responses in just about two month; over 500,000 subscriptions were obtained by the end of the year; *12snap* reported a response rate close to 30 percent and the campaign was highly successful. In 2002, McDonald’s confirmed its commitment to mobile marketing with a new campaign sponsoring a popular music group.

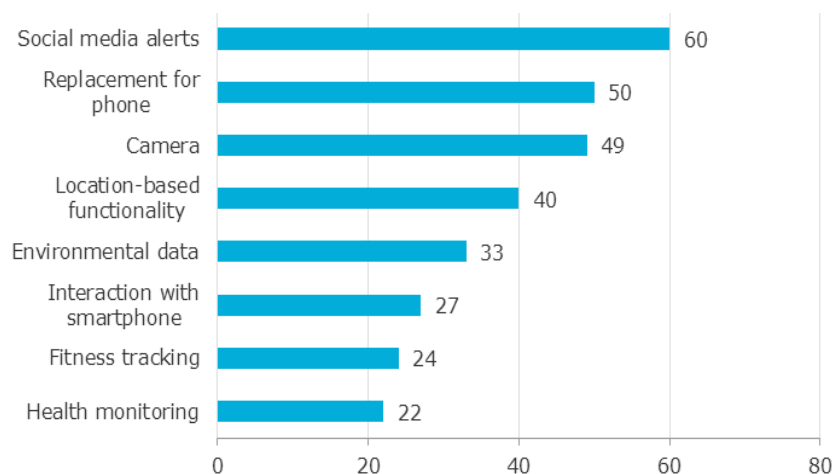
As argued by Godin (2007), people unequivocally welcome marketing attempts they are expecting. With the adoption of permissions marketing, marketers can pair up with customers who are willing to receive promotional messages. There would be less discomfort on the part of customers receiving information they are not ready to hear. It is important for marketers to note that repeatedly asking for permission can on one hand cause inconvenience and lead to customer disinterest. Nonetheless, if marketers are able to successfully create heavy customer involvement this would lead to positive returns on marketing investment.

4.6 Wearable Gadgets

Wearable gadgets, also referred to as wearable technology, wearable togs, fashion

electronics, and other similar terms, basically refer to the application of computer and advanced technology to clothing and daily wearable items. The concept is flourishing at a very fast rate in areas of application on health and safety platforms. Others flourishing areas include application to location and telecommunication purposes. Even though no clear brand has captured the general public as a whole on the global level, such reason may be attributed to the wide array of wearable gadgets with diverse usage. One particular wearable poised to revolutionize the global wearable gadgets market is the “Google Glasses”. Most telecommunication gadgets are worn on the wrist while others are worn on parts of the body like the chest and waist to collect health data. Disinterest has been expressed in various areas of wearable electronics (*Figure 7*) especially for social media alerts Golovko (2013).

Figure 7 - Disinterest in features of wearable electronics



Source: Golovko, M. (2013) Lack of Consumer interest in Wearable Tech. - Analyst Insight from Euromonitor International. [Online] Available from: <http://blog.euromonitor.com/2013/09/-lack-of-consumer-interest-in-wearable-tech-.html>.

Even though general wearable gadgets (eg. wrist watches) have been in existence for centuries, modern wearable gadgets constitute key advancement in technology. They help collect consumer data in the most spectacular manner; a breakthrough for marketers to diagnose consumers remotely. Markets are forced to present themselves not just through apps on mobile devices, but gadgets that are specially produced in accordance with their product and worn by customers. Experts predict a revolution in various areas of technological application to clothing and daily usage. Marketers must identify which gadgets are most likely capable of getting their service or product closer to consumers. Whereas it has been established that opportunities exists with relevant gadgets, some

wearable may threaten the very elimination of key business activities. It is important to note that even though gadgets are gaining popularity, many consumers would only consider them based on relevance to health.

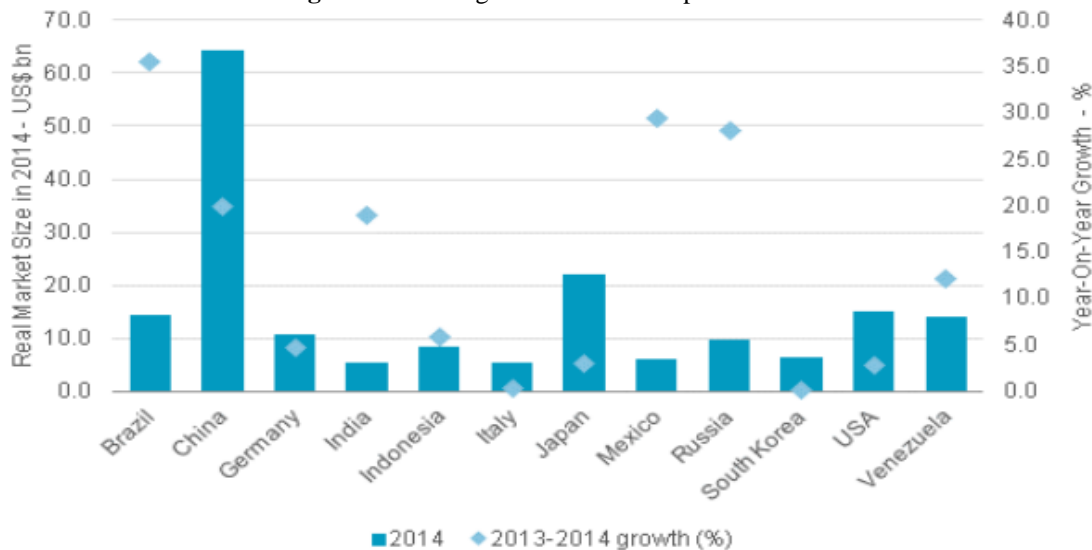
4.7 Digital Wallet

Prior to 1995, the technology adaptation of master cards was still gaining some momentum (Hyams, 1995). However, Contemporary modes of payment have witnessed the reality of payment via mobile equipment. Digital wallet technology is also referred to as wallet phone, mobile payments, and other similar terms with minor differences in definitions. The concept has moved from a network

service provider storing your money on a secured “chip” to associating ones bank directly onto the phone with installed applications. It is important to note the difference between Digital Wallet and mobile banking, which ultimately refer to two very separate concepts. Digital wallet may be more associated with m-commerce. Key components of Digital Wallets include near field communication, secure smart chip, electronic wallet application, and trusted service manager who authenticates transactions.

According to Evans (2014), China holds the potential of becoming the second largest market for mobile commerce by 2018. The country managed to triple its m-commerce market over a period of just about 5 years; moreover a well-established digital payment platform and heavy penetration of financial cards are key elements driving the sector in the country. In addition to this, China records a leading market for smartphones globally (**Figure 8**), even with the market at an infant stage of development. Favorable demographics definitely plays a very important role in Chinese market potentials.

Figure 8 - Leading markets for smartphones: 2013 -2014



Source: Kasriel-Alexander, D. (2014) Top 10 Global consumer trends. [Online:] Available from:http://www.centromarca.pt/folder/conteudo/1005_Top%2010%20Global%20Consumer%20Trends%20for%202014%20v1.pdf

M-commerce or mobile wallet market is anticipated to reach over \$ 5,259 billion or 5.25 trillion USD by 2020, growing at a gigantic growth rate of 127.5% from 2013 to 2020 (Statista, 2014). Penetration is gradually gaining momentum and experts are looking forward to it replacing cash and card transactions. It must be noted that mobile wallet penetration has strong association smart phone penetration as well as with internet access.

As modes of payment present themselves on mobile phone, marketers are forced to move almost every aspect of the traditionally physical modes of marketing transactions to virtual modes. Fundamentally, the investment needed to adapt traditional modes to modern forms of payments must not be ignored. It is becoming more relevant to recognize, upgrade and adapt to the use of digital wallets as they replace cards and cash payments. Device installations, applications, and key strategies are essential. Loyalty programs may be issued digitally and clients may pay for services mode abruptly, even from their private chambers, public

transports, or anywhere else without the help of a computer. Payments would be more efficient, credit reduced, and numerous innovative programs at the disposal of marketers.

4.8 Internet of Things

The term “Internet of things” or “IoT” is one of the most ambiguous and yet all-encompassing trends in technological advancement. Even though Friedemann and Floerkemeier (2010) argue that the concept has been present in literature since 1991, the major proponent of this concept is Kevin Ashton (2009). IoT refers to the current situation of heavily flooded internet platform with massive duplications and limited data analytics, resulting in the need for efficiency in data usage and manipulations. Considering the fact that human limitations are in areas of accuracy, attention and time, if the internet/computers could alleviate repetition and apply knowledge as well as experiences already gathered, with minimal effort from humans, then

much could be availed in terms of waste and cost reduction, greatly enhancing information technology efficiency. Optimal efficiency would be in sight when every single person, device, product, obtains a unique Internet Protocol (IP) address and interact over the internet.

Over 9 billion devices were connected to the internet with a constant stream of information and data totaling 2.8 trillion gigabyte. Total number of devices reached 24 billion in 2010 and is expected to reach 200 billion by 2020 (Piras, 2014). With reference to the “things” considered, this ranges from computer chips to fridges. In light of the huge amount of data produced by these devices and made available online, Burn-Murdoch (2012) reports that less than 1% is analyzed for decision making. This is true despite the fact that more than 80% of online data is unprotected. Presently, over 76% of companies as well adopt in internal approach to Internet of things with remarkable efficient management of data internally. Such systems include automated purchases and product suggestions to clients with little effort from both ends. These are made possible as customer behavior is hardwired into company offerings.

Prospects for the implementation of IoT approach to marketing are very high. Marketers must note that, already, most data transmitted over the internet are with very little human intervention. Most of such automated data updates fall into areas such as location, weather, movement, temperature, environmental features and such others. Other data emanate from computers and other computer chips. Consumers as they leave their footprints in the form of site visits and web history, they add more data by uploading content in the form of pictures, videos and other forms of data. All such data are at the disposal of marketers and may be put to good use by the marketer. The concept of IoT does not have an end limitation of the capabilities of technology. Ultimately, it would ensure efficiency of data and avail common knowledge to all connected device. Synchronized and more effectively managed data would imply rapid development and even further technological advancements.

5 DATA CENTRIC TRENDS

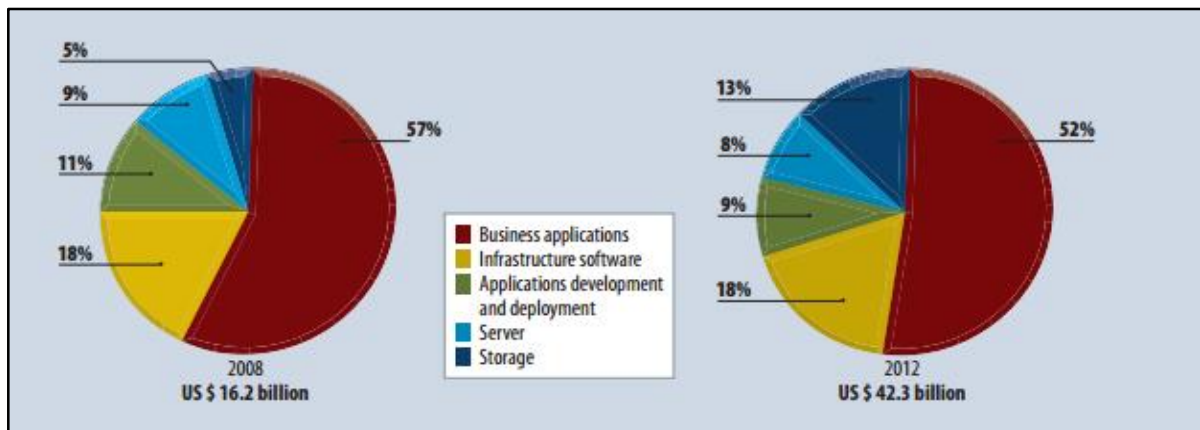
The final category of trends has higher dependence on data at the core of their operationalization. Cloud computing and big data are two data centric trends which presents the marketer with marvelous opportunity to know their customers and present them with exact offering that meet their needs.

5.1 Cloud Computing

Cloud computing is an innovative arena in internet computing that concerns storage, design, architecture, and execution of present networks and data centers. Microsoft Azure Cloud is an example of such application of cloud computing. The service offers developers a hosted .NET Stack; a general cloud based computing resource. The company provides customers particular internet based applications namely Dynamics CRM Online for customer-relationship management (Levitt, 2009). Other systems from student enrollment to complete organizational enterprise resource management (ERP) systems have found their ways onto the cloud.

According to *Figure 9*, evidence has shown that cloud computing is increasingly been implemented in various areas of business activities. Revenue is generated from application of cloud computing for storage, server, and other computer applications development purposes. Data collected from 2008 and 2012 revealed more than double the increase in income generated from cloud computing over the four year period. In the recent past, cloud computing had been used by organizations for billing, customer management, and other B2B purposes; however, it is currently increasingly offered to the individual consumer by marketers. Ultimately, the largest application of cloud computing is in areas of business applications which has a prime responsibility of safeguarding customer data and ensuring consistency in customer dealings with an organization.

Figure 9 - Market research firm IDC predictions on cloud computing revenue



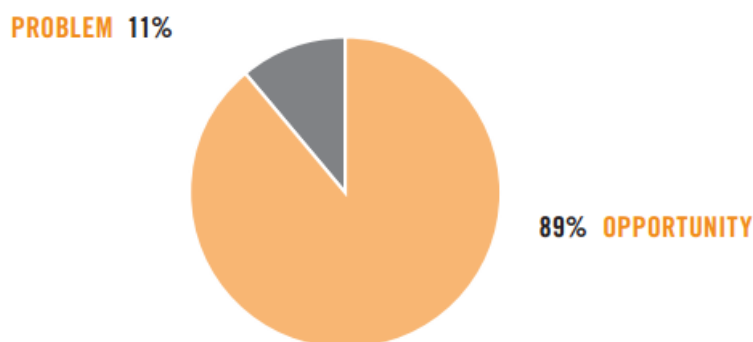
Source: Columbus, L. (2013) IDC's top ten technology predictions for 2014: Spending on cloud computing will exceed \$100B. [Online] Available from: <http://www.forbes.com/sites/louiscolumbus/2013/12/03/idcs-top-ten-technology-predictions-for-2014-cloud-spending-will-exceed-100b/>

With cloud computing, marketers can offer online database access to clients and storekeepers with different levels of user access. Such access would help back up personal content, preferences and settings as customers desire or as they visit the company stores. It has become dominant for customers to move from one place to another and expect consistency in service offerings, especially from preferred/home brands they find in different geographical locations. Marketers are able to store information pertaining to customer order details, making it accessible in every store or location. Cloud computing provides an avenue to utilize applications and services out of store locations with just a device/computer and internet connection; this is made possible by installing automated and interactive applications using such technology.

5.2 Big Data

The term big data is used in the field of sciences to address the data sets which require supporting supercomputers. It is much bigger than its capacity to cross reference, search and aggregate. Big data may however be defined in various aspects such as technological, cultural and academic. In terms of technology, big data is used to gather computations in order to analyze and relate large data sets. From a cultural perspective, big data is used to identify patterns that could result in economic and social stances. Finally, in a study conducted by Russom (2013), only a small portion of businesses consider big data management a problem; illustrating a high tendency of acceptance into the corporate world (*Figure 10*).

Figure 10 - Big Data Management a problem or an opportunity



Source: Burn-Murdoch, J. (2012). Study: less than 1% of the world's data is analysed, over 80% is unprotected - theguardian.com . [Online] Available from: <http://www.theguardian.com/news/datablog/2012/dec/19/big-data-study-digital-universe-global-volume>.

Burn-Murdoch (2012) projects close to 40 zettabyte of data at the disposal of marketers. Online dating services, like Match.com, constantly sift through their web listings of personal characteristics, reactions and communications to improve the algorithms for matching men and women on dates. On the other hand, police departments across the United States of America, led by the New York Police Department, use computerized mapping and analysis of variables like historical arrest patterns, payday, sporting events, rainfall and holidays to try to predict likely crime “hot spots” and deploy officers there in advance (Lohr, 2012).

Even though controversies continue to exist on the applicability of big data as some argue that it would rather be more efficient to work with only a limited number of variables towards marketing decision making, the benefits of big data to

marketing strategy development must not be overlooked. The contribution of big data to engineering, healthcare, and overall management is enormous. Putting together huge amounts of market data from a variety of sources and pertaining to dimensions applicable to the search for answers to any marketing questions, large volumes of data may be used to generate precise solutions. The system has already revolutionized farming, supply chain, logistics and other functional business areas. Marketers must therefore welcome big data, making use of advanced approaches to analysis and manipulations, to overcome its major challenge of being unstructured and the bulkiness of data. Based on fourteen trends discussed under the three broad dimensions of social media, data and technology, the tri-component model of contemporary marketing may be formulated (*Figure 11*).

Figure 11 - Data, Technology and Social Media Centric Trends influencing marketing strategies



7 CONCLUSION

In conclusion, these trends do not represent an exhaustive list influencing strategic marketing decisions. Classifications in the proposed model (Figure 11) are based only on data, technology and social media trends. Future researchers can capture the emerging trends also from other perspectives. Other trends and advancements may be fitted into the current model that may ultimately reflect on their impact on contemporary marketing.

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