

# Refining Strategies and Improvised Decision Making With Insights from Big Data Applications

**Kavita Khadse**

Chetana's R.K.Institute of Management & Research, Bandra(E),  
Mumbai-51,MS,India

## **Abstract**

Big data denotes to the ever-increasing volume, velocity, variety, variability and complexity of data. This is forming the base for marketing activity of an enterprise. Email, postings on social media and communications through web portals, and other electronic interactive media are scanned regularly and timely information gathered. Right materials are to be sending to right person at right time. For this, various software tools currently available are executed to process very large volumes of data. Big Data has changed perceptions and reality by quickly disrupting conventional business models for marketing. The results due to driving transformative change, extracted on processing of Big Data has revolutionized the marketing strategy of Enterprises. Paradigm shift for marketing is observed on visualizing new opportunities, Customer decisions, strategically trends and real time personalization. Enterprises leverage big data in their marketing strategy. The purpose of this paper is to identify Disruptions in Marketing of Enterprises by integration of Big Data Applications. Radical changes for convergence on output is in process of Product price optimization, requirement analysis, Customer analysis, system scalability, product life cycle, sales optimization, marketing activity, customer engagement, business value drivers and customer value analysis.

**Keywords:** *Disruptions in Marketing, Big Data Applications, revolutionizing*

## **1. Introduction**

Digital marketing involves profoundly and astronomically immense volumes of data, great cardinality in key variables, and an incrementing fixate on open ended analytics, data that is semi-structured but stream predicated and, in some cases, genuinely unstructured streams of text data. It withal involves intricate logical commix of streams of data at the customer level. Technological solutions are utilized for identically tantamount. Astronomically immense Data technologies for enterprise are decided by matching the key decision factors for each type of digital marketing use case to the technology solutions. This process withal determines the congruous commix of available technologies. In integration, the mapping of application factors to technology solutions withal highlight the areas where the platform is liable to struggle or presents particular jeopardizes. data. shown in Fig 1. The cases and factors are as Sizably voluminous Data is kenneed for its faculty to process data that comes in astronomically immense quantities (volume), at a rapid rate (velocity), and in variants (variety) as shown in Fig 2. Google's Map/Reduce technology that was implemented as open source software by Apache Software as Hadoop made it possible to handle such data rapidly. Cloud computing technology enabled the business to have all the compulsory computing resources to process such

volumes

of

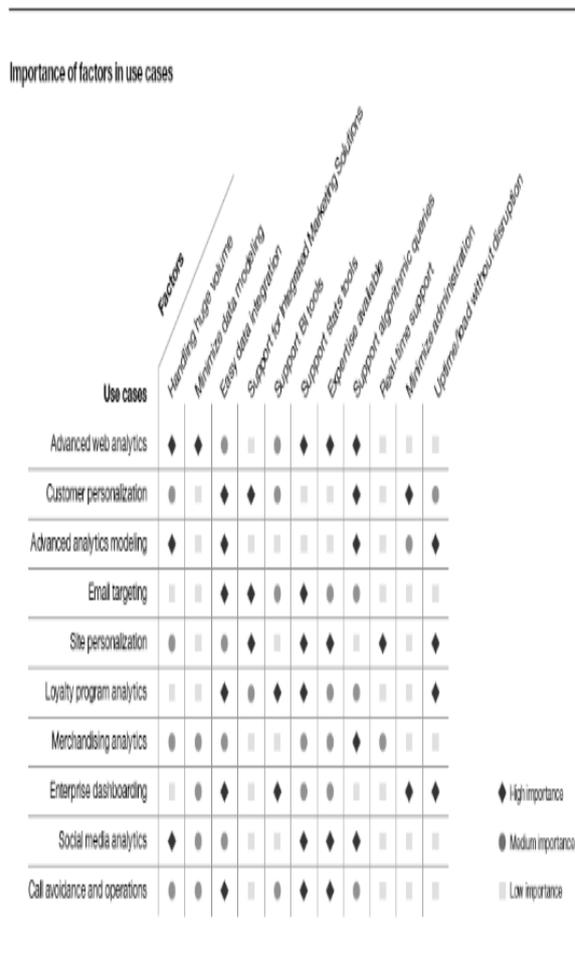


Fig. 1 Cases and factors

These aspects made the commencement-ups to fixate on their techniques and conceptions and let cloud computing make the infrastructure available to them. This confluence of technology and business processes made it possible to provide the utilizable applications to the users. In this environment when mobile technology grew rapidly, the marketers were able to make available the pertinent content about sundry products to the consumers utilizing the sundry marketing techniques. The marketing approaches that benefit from utilizing Sizable Voluminous data are:

- ✓ multi-touch attribution,
- ✓ granular audience targeting,
- ✓ forecasting,
- ✓ predictive analytics and
- ✓ content marketing

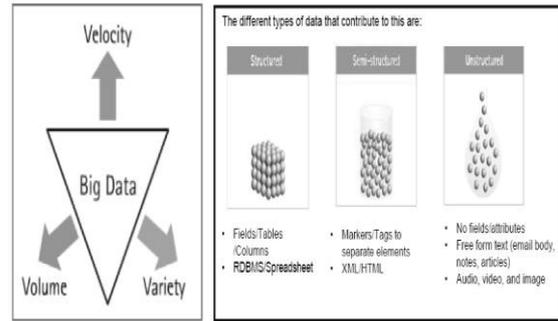


Fig. 2 Big Data contributors

## 2. Objectives

To analyze the changes in enterprises after integration on Big Data applications for marketing.

## 3. Methodology

This Paper focus on disruptions in marketing of enterprises by integration of big data applications. This entire paper is based on published sources of information.

## 4. Why big data matters to Marketing

The potency of large data lies in its competency to process profoundly and immensely colossal volumes of data expeditiously. It is consequential to note that in marketing applications the advertiser is expected to target the right content for the right consumer at the right time. Astronomically Immense Data facilitates this by amassing data from multiple sources, especially gregarious media where people disclose plenty of details about their predilections. The technological advancements enable the amassment of convivial media data expeditiously. At the same time supplemental information is needed about the location where the person is at a given time and what they have expressed in other media such as email. Such information is withal brought in as a component of the immensely colossal Data. Geo location information is obtained from the mobile contrivance of the individual. Now that a business that processed this Sizable Voluminous Data expeditiously is able to ken much about the predilections of an individual and send that consumer the targeted ad that addresses their immediate need. This facility to ken the desideratum and make the product information available to the consumer makes it very benign to the consumer and that person is able to auspiciously react to the ad containing the information that they are in desideratum of at that

time. This is weaving immensely colossal Data erudition to meet the consumer prospect. [2]

By cumulating astronomically immense data with an integrated marketing management strategy, marketing organizations can make a substantial impact in these key areas:

4.1 Customer engagement. large data can distribute insight into not just who your customers are, but where they are, what they opted, how they opted to be contacted and when.

4.2 Customer retention and adhesion. Immensely colossal data can avail you discover what influences customer adhesion and what keeps them coming back again and again.

4.3 Marketing optimization/performance. With sizably voluminous data, you can determine the optimal marketing spend across multiple channels, as well as perpetually optimize marketing programs through testing, quantification and analysis.

## 5. How Big Data is Revolutionizing Marketing

Incrementing the quality of sales leads, amending the quality of sales lead data, amending prospecting list precision, territory orchestrating, win rates and decision maker engagement strategies are all areas where immensely colossal Data is making a contribution to sales today. In marketing, Astronomically Immense Data is providing insights into which content is the most efficacious at each stage of a sales cycle, how Investments in Customer Relationship Management (CRM) systems can be amended, in integration to strategies for incrementing conversion rates, prospect engagement, conversion rates, revenue and customer lifetime value. For cloud-predicated enterprise software companies, astronomically immense Data provides insights into how to lower the Customer Acquisition Cost (CAC), Customer Lifetime Value (CLTV), and manage many other customer-driven metrics essential to running a cloud-predicated business. [3].

The aspects that have affected due to incorporation of Immensely Colossal Data technology are detailed below:

5.1 Differentiating pricing strategies at the customer-product level and optimizing pricing utilizing astronomically immense Data are becoming more achievable. To get adequately granular, companies are following four things:

5.1.1 Listen to the data. Good analytics can avail companies identify how factors that are often overlooked—such as the broader economic

situation, product predilections, and sales-representative negotiations—reveal what drives prices for each customer segment and product.

5.1.2 Automate. Automated systems can identify narrow segments, determine what drives value for each one, and match that with historical transactional data. Automation additionally makes it much more facile to replicate and tweak analyses so it's not indispensable to commence from scratch every time.

5.1.3 Build skills and confidence. Companies need to work proximately with sales reps to explicate the reasons for the price recommendations and how the system works so that they trust the prices enough to sell them to their customers. Equipollent paramount is developing a clear set of communications to provide a rationale for the prices in order to highlight value, and then tailoring those arguments to the customer. Intensive negotiation training is additionally critical for giving sales reps the confidence and implements to make cogent arguments when verbalizing with clients.

5.1.4 Actively manage performance. The greatest impact emanates from ascertaining that the front line has a transparent view of profitability by customer and that the sales and marketing organization has the right analytical skills to agonize and capitalize on the opportunity. The sales force withal needs to be empowered to adjust prices itself rather than relying on a centralized team. This requires a degree of ingenuity in devising a customer-categorical price strategy, as well as an entrepreneurial mind-set. [4]

5.2 Astronomically immense Data is revolutionizing how companies procure more preponderant customer responsiveness and gain more preponderant customer insights. It is found that 44% of B2C marketers are utilizing Astronomically Immense Data and analytics to amend responsiveness to 36% are actively utilizing analytics and data mining to gain more preponderant insights to orchestrate more relationship-driven strategies. Marketing challenges such as understanding customer interactions across channels, managing campaign, etc., are resolved. The challenges overcome, in percentage is as shown in Fig 3. [5]

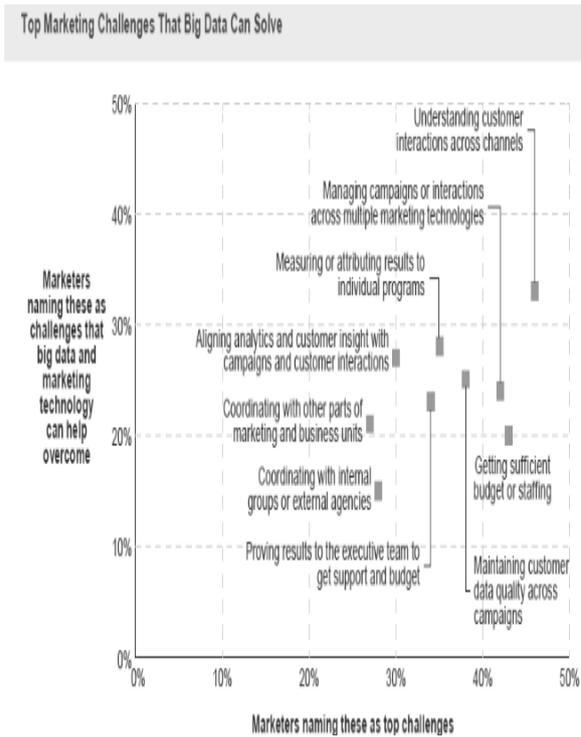


Fig 3. Marketing challenges that Big Data can resolve

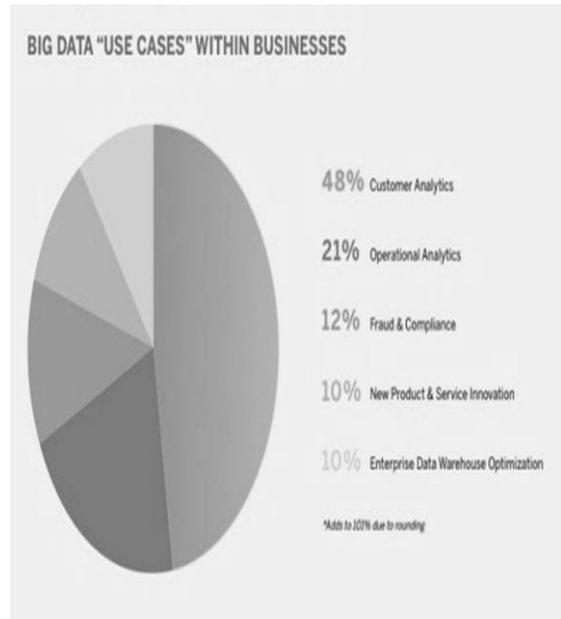


Fig 4. Big Data use cases with businesses.

5.2.1 Customer Analytics (48%), Operational Analytics (21%), Fraud and Compliance (12%) Incipient Product & Accommodation Innovation (10%) and Enterprise Data Warehouse Optimization (10%) are among the most popular astronomically immense Data use cases in sales and marketing. Customer analytics dominate Immensely Colossal Data use in sales and marketing departments, fortifying the four key strategies of incrementing customer acquisition, reducing customer churn, incrementing revenue per customer and ameliorating subsisting products. [6]

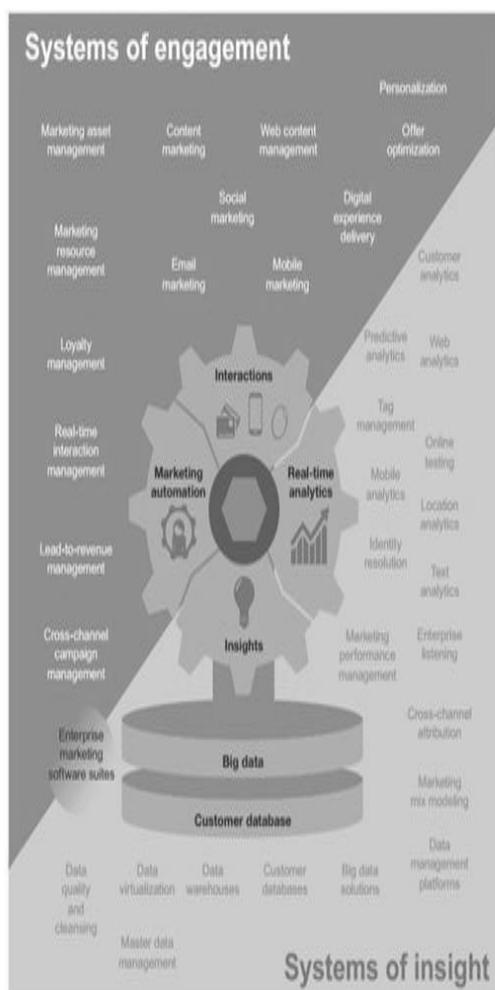
Big Data and its affiliated technologies support make it's now possible to embed intelligence into contextual marketing. The marketing platform stack in many companies is growing fast based on evolving customer, sales, service and channel needs not met with existing systems today

. As a result, many marketing stacks aren't completely integrated at the data and process levels. Big Data analytics provides the foundation for creating scalable Systems of Insight to help alleviate this problem. The following graphic shown in Fig 5 is from the Forrester study.[7]

Fig 5. Enterprise marketing technology components support system of insight and engagement

5.2.2 Marketers' ability to get beyond campaign execution and focus on how to make customer relationships more successful is enhanced by Big Data analytics. By using Big Data analytics to define and guide customer development, marketers increase the potential of creating greater customer loyalty and improving customer lifetime. The following graphic shown in Fig 6 is from the SAS-sponsored Forrester study.[8]

5.2.3 Optimizing selling strategies and go-to-market plans using geo analytics are starting to happen in the industry. Companies typically spend 20% to 30% of their revenues on selling, general, and administrative.



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Fig 5. Enterprise marketing technology

If these companies could more accurately align their selling and go-to-market strategies with regions and territories that had the greatest sales potential, go-to-market costs would be immediately reduced.

The Big Data delivery of high impact targeting for marketing example of biopharma product is as shown in Fig 7. [9]

Life-cycle stage	Business objective	Analytical method
Discover	Profile customers	Segmentation
	Evaluate prospects	Lead scoring
	Reach right prospects	Customer look-alike targeting
Explore	Analyze customer response	Offer/contact optimization
	Optimize marketing mix	Marketing mix modeling
	Test marketing inputs	A/B and multivariate testing
Buy	Predict future events	Propensity models
	Expand wallet share	Cross-sell/upsell
Use	Target accurately	In-market timing models
	Drive deeper product use	Product and recommendation analysis
Ask	Understand context behind usage	Sentiment analysis
	Learn about drivers of engagement	Engagement analysis
Engage	Understand customer satisfaction	Voice of the customer analysis
	Manage defection of customers	Churn models
	Personalize marketing efforts	Next-best-action models
	Maximize customer value	Lifetime value models
	Add context to behavior	Customer location analysis
	Increase depth of relationship	Loyalty models

Fig 6. Analytics across life cycle

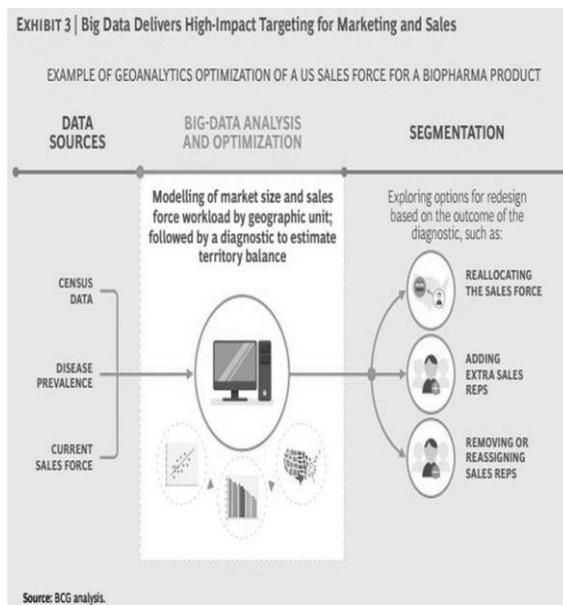


Fig 7. High impact targeting for marketing

5.2.4. Big Data is having the largest impact on marketing programs with Search engine optimization (SEO) and marketing, email marketing, and mobile. Big Data and analytics will be essential to their marketing strategy over the long-term [10]. The impact on various programs and strategies are shown in Fig 8.

5.2.5. Greater customer engagement and customer staunchness through the utilization of advanced analytics and sizably voluminous Data. Immensely Colossal Data expertise was adequate to get strategies off the ground and prosperous; enterprise-wide expertise and massive culture change was accomplished after pilot programs distributed positive results. [11]

In which of the following areas are big data analytics currently having the largest impact on the way marketing is executed or how decisions are made in your organization?

Non-digital advertising	14%
SEO/SEM/email/SMS marketing	35%
Social media outreach	18%
Social media analysis	35%
Marketing strategy	41%
Brand strategy	22%
Loyalty/retention programs	36%
Customer segmentation	49%
Customer service	19%
Product/service development	14%
Public relations/crisis awareness	5%
Other	5%

Respondents were allowed to choose multiple responses.

Fig. 8 Impact of Big Data on various programs and strategies

5.2.6 Big Data is enabling enterprises to gain more preponderant insights and actionable perspicacity into each of the key drivers of their business. Engendering revenue, reducing costs and reducing working capital are three core areas where astronomically immense Data is distributing business value today. Enterprises' value drivers scale more efficiently when managed utilizing advanced analytics and Sizably Voluminous Data. The following value tree or roadmap to value as shown in Fig. 9 illustrates this point.[12]

The business value drivers are beginning to follow familiar patterns – more data and better insights create value

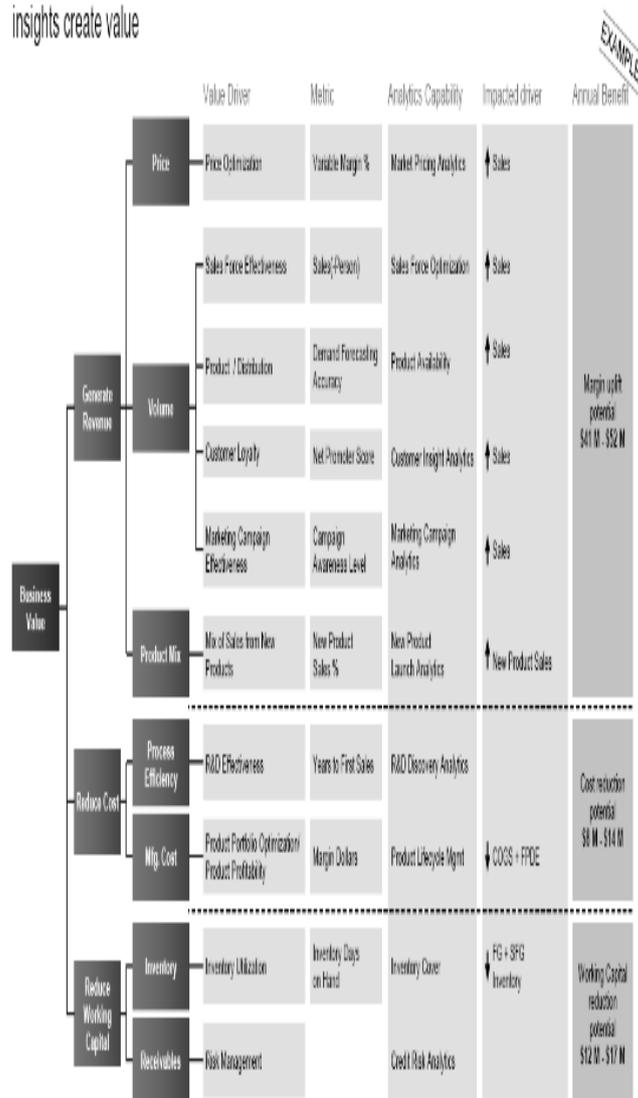


Fig. 9 Roadmap to value

5.2.7. Customer Value Analytics (CVA) predicated on astronomically immense Data is making it possible for leading marketers to distribute consistent Omni channel customer experiences across all channels. CVA is emerging as a viable series of Astronomically Immense Data-predicated technologies that expedite sales cycles while retaining and scaling the personalized nature of customer relationships. The bottom line is that CVA is now a viable series of technologies for orchestrating excellent Omni channel customer experiences across a selling network. CVA impact is illustrated in Fig. 10 [13]

Customer Value Analytics (CVA) – to make a fact based and decisive impact on customer journeys



Fig. 10. Customer Value Analysis

## 6. Conclusion

Utilization of immensely colossal Data has effect on sundry marketing approaches such as target marketing, predictive analytics, forecasting and content marketing. Sizable Voluminous Data applications are all endeavoring to leverage the cognizance gained from people's predilections and show them the germane information to identify the right population. Technology today provides the faculty to target individuals felicitously with the right content. Sending the right content to the right individual at the right time is critical. The same is achievable by integration of astronomically immense Data application into enterprises.

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