



## Effective Combination and Analysis of "Big Data" and "Classic Marketing"

---

Pin-Yuan Huang, Hsiao-Chi Ling and Ruei-Yuan Wang

EasyChair preprints are intended for rapid dissemination of research results and are integrated with the rest of EasyChair.

June 11, 2020

# Effective combination and analysis of "Big data" and "Classic marketing"

*Pin-Yuan Huang*  
*School of Business*

*Minnan Normal University*

*Zhangzhou, Fujian, 363000, China*  
*5168ceo@gmail.com*

*Hsiao-Chi Ling\**  
*Department of Marketing*

*Kainan University*

*Taoyuan City, Taiwan*  
*max.ling911@msa.hinet.net*

*Ruei-yuan Wang*  
*Department of geographical science*  
*College of Sciences*

*Guangdong University of*  
*Petrochemical Technology, China*  
*Maoming City, Guangdong*  
*Province*  
*rueiyuan@gmail.com*

**ABSTRACT** - The purpose of the research is to study the difference between big data analysis (BDA) and classic marketing analysis (CMA), and use the solutions provided by big data analysis (BDA) to solve the problem of production failure. Through theoretical research, to provide better marketing strategies to promote production. The research combines big data analysis and classic analysis, and chooses high standards of complexity and regulations to combine to produce more valuable insights to improve production efficiency. In addition, the research shows that the existence of predictive knowledge can show the effect of testing, and then develop better marketing efforts. The conclusion shows that marketing behavior can identify customer needs and interests and obtain early decisions as a decision-making application for production improvement.

**KEYWORDS** - Big Data Analytics; Marketing; Classical Data Analytics

## I. INTRODUCTION

After research, we found that there are still many obstacles in marketing practices, including the lack of successful models of new products. Because classical methods cannot really grasp the speed of knowledge and the flow of information, they cannot achieve the ability to solve these problems.

Today, big data analysis methods have been used in many fields, because the amount of data presented is too large to be fully understood by the brain. However, "big data is a professional term that describes a large amount of high-speed information. It is complex and variable data. Advanced technology is needed to achieve acquisition, storage and information distribution, management and analysis. "[1]. Therefore, the big data analysis method is considered to be the best way to help marketing decision makers gain better insights to increase productivity.

This article introduces the difference between big data and classical analytics, followed by Introduce theoretical research to determine the appropriate production strategy. This study provides us the combination between the two analyses, these combinations stem from the use of big data. By understanding the forecast knowledge of customer needs Anticipate better decisions to increase production, and then observe common influences on marketing behaviors to identify customer impacts and make early production development decisions. By collecting data, analyzing (BDA and CMA) and making better decisions in the actual situation to achieve the time of production success.

## II. CLASSICAL ANALYTICS AND BDA

The functions of classical data analysis are limited by the maximum and minimum values, and cannot solve the problems facing marketing today. Therefore, classical marketing analysis cannot solve the method of achieving better production success. The method of big data is different. Big data is unstructured and complicated. It also describes a very large data set [2]. It is also used to describe a large number of numbers and data.

Both business intelligence and big data analysis can be used to promote marketing decision models. And get more valuable insights, information and accurate analysis on time.

Today, the combination of information technology and marketing is used to improve production development [3]. Therefore, classical marketing analysis methods have promoted marketing results to gain more valuable insights. At the same time, the big data method can also participate in understanding the needs of customers to enhance marketing decision-making ability, so as to obtain high-quality product information in terms of quantity and speed, and predict risks before they occur.

## III. THEORETICAL STUDY

In terms of classical analysis, business analysis methods can estimate risks and predict product success. Because with timely data, classical marketing analysis can facilitate business decision-making to produce methods and results [4]. Classical marketing analysis is focused on improving the factors of production success (especially in customer behavior and product development), and the use of big data analysis is to follow the information and analyze big data in time [6].

Despite this, the market's production development is still very complex, requiring large amounts of data to identify customer requirements and marketing practices and content [7]. Therefore, big data analysis methods have the potential to achieve

business decisions for successful production. In addition, the development of actual marketing strategies requires the collection of analytical knowledge such as CMA and BDA to determine the appropriate production strategy and determine their customers' reactions and sentiments, as well as the capabilities of competitors.

In addition, knowledge about forecasting shows that companies pursue wealth accumulation and forecast customer needs, while complexity governs the process [8]. Predictive knowledge (KP) depends on data, capabilities and company performance. Data leads to capabilities, and capabilities affect corporate performance [9]. The result of successful production is considered to be not only the ability of enterprise performance, but also the scale of enterprise performance. Therefore, it is difficult to distinguish the difference between capability and performance, and to distinguish the difference between them. The company's capabilities are influenced by marketing behaviors and methods. Therefore, it is related to predicting knowledge and production success.

The study found that market turbulence can also affect the success of production. Since ancient times, turbulent factors have been constantly present, but they can effectively carry out various innovations. We can also expect that there will be some turbulent marketing factors that affect the success of production. The relationship between the turbulence in the market and the success of production has been greatly supported [10]. In addition, marketing behaviors can be tailored to each customer's needs and interests, and help us get better business decisions, so marketing behaviors also directly affect production development.

#### 1. The combination of classical marketing analysis and big data analysis

The study found that knowledge fusion will merge with each other in various fields. This knowledge combines big data analysis and classical marketing analysis to obtain valuable information in a timely manner to facilitate the marketing decision-making process. In addition to being able to understand the life cycle of consumers, it may also help to respond to customers' ideal pricing strategies [8]. This knowledge enables us to deeply understand the relationship between major customers. And data analysis, classical marketing analysis and production success factors. The purpose of this combination is to enable companies to predict production success based on their respective marketing experience [5].

In contrast to traditional analysis, this part is that big data has the ability to gain insight into the social behavior of customers [11]. Therefore, this combination uses a comparative strategy to analyze behavioral data and structure the diversity of big data sources because it contains rich behavioral information. The combined analysis is used to predict different behaviors. It also provides multiple customers with a fast classification method to meet the predictions required by customers.

Research shows that there is a classification method between big data analysis and classical marketing. This is an analysis method with a certain degree of complexity and predictive knowledge. It can be divided into four strategies. This classification method can help companies choose their own strategy.

The strategies of perfectionists and resource managers rely on big data analysis or classic marketing analysis [5]. Therefore, the combined level of average knowledge gained by companies choosing either of these two strategies may lead to an average level of production success. Therefore, when companies use third-party strategies, they rely on heuristics to make marketing decisions about new products [5]. For companies that rely on this strategy, the combination of knowledge and production success rate are both low. However, in the most up-to-date strategy, companies can achieve the knowledge combination and production success that can improve the level of knowledge of everyone in the organization, because the leader's strategic technical expertise, market analysis and information about customer needs]. The leader is one of the greatest important strategies. It has the ability to make timely decisions and helps to understand consumers' requirements and perceptions of successful production.

There are many advantages in establishing a pioneer's position in marketing. It has become a short-term monopolist of market pioneers [12]. This helps to establish standards in the future marketing field, competitors will be measured by consumers [13]. In order to determine to become a leading company, researchers recommend leading advantages, such as producing new products, using new processes, and developing and selling the product [14].

In this study, we focus on the classical analysis and marketing analysis of big data analysis, which helps to customize knowledge for customers to create special value [5], and realize forecasting knowledge. Since this strategy relies on customized knowledge, we chose the pioneer strategy (PS).

More and more companies are adopting BDA (for example, using customer analysis). They can obtain automated and customized knowledge [5]. Different from the original hypothetical knowledge, it is an internal analysis method obtained from classical marketing. Therefore, successful companies must implement customized procedures to anticipate customer needs. This study shows the importance of attaching great importance to complexity. Complexity can fundamentally change behavior [15].

The complexity and speed with which companies acquire and analyze information must increase. It has been stated that the combined analysis between big data analysis and classical marketing requires the application of complexity and the use of predictive knowledge.

#### 2. The knowledge of Prediction and Marketing Behavior

You can make predictions in various fields at any time. The theoretical prediction knowledge can be used to test the impact of marketing behavior on production success [16]. Predicted data and knowledge are influencing factors of marketing behavior and corporate performance [17]. The most important aspect of predicting knowledge is efficiency. Corporate performance has many concepts, including effectiveness, efficiency and adaptability.

Therefore, there is a correlation between knowledge prediction and marketing behavior. Knowledge forecasting regards production success as a capability, and marketing behavior as a resource for achieving capability. Studies have shown that

based on predictive knowledge, resources can affect capabilities. This means that marketing behavior also affects the success of production.

### 3. The joint effects of Marketing Behavior and Marketing Turbulence on Production Success

After collecting information, behavioral relevance will be used to create customer profiles using analytics. And by analyzing customer responses, marketing behavior can be tailored to each customer's needs and interests. Using the BDA method correctly, the method of behavioral relevance can be to attract the right customers through the right products. This is a very effective method and service. Therefore, the data analysis method can also help us create an effective track for behavioral marketing.

Marketing behavior has a significant impact on business decisions. In addition, with the advantages of big data, we can make timely decisions, so we can make early decisions and actions on the actions we take. Multiple studies have shown the advantages of marketing behavior; their statistics indicate that the ratio between accepting early decisions and accepting early decisions is different. Not an early decision.

Therefore, these statistics confirm that marketing behavior is an important coping method for decision-making behavior and customers, used to improve production and directly affect production development.

Research shows that the factors of market turmoil will affect the company's production development and production success [18]. At the same time, companies that can handle both market turbulence and creativity can achieve better performance [19]. To find more production performance forecast indicators, it is recommended to investigate the obscure factors in the market. Examining the causes of market turmoil helps to better understand the real situation of the company's production development [20]. In order to predict the company's performance, market turbulence factors represent the ideal combination of market factors with internal and external resources. Therefore, we anticipate that market turbulence will enhance market capacity to encourage the development of new products.

The correlation between market turbulence and production success is greatly supported [10]. Competing between MB and MT involves getting the desire of competitors, understanding the marketing environment and the needs of consumers. This will have a positive impact on production development, so MB and MT are very valuable for achieving production development.

Therefore, both marketing behavior (MB) and market turbulence (MT) are relevant to production success (PS).

## IV. CONCLUSION AND DISCUSSION

Even though Classical Analytics will have a significant impact on production projects, it can make production successful. But it also requires a lot of data to solve this problem.

In order to enable our research to continue, in this study, we discussed the importance and impact analysis of big data, through timely action, make better decisions to achieve production success, and thus achieve our corporate performance goals.

We propose a theoretical study, which includes big data analysis and classical marketing analysis, to understand the customer's demand for successful production, and at the same time understand how production can be successful by processing fast and complex data messages. We have proved that these companies must profit from the two analysis of BDA and CMA by focusing on the pioneer's strategic model, and with a high degree of customization and complexity, we truly and timely obtain our goals.

The use of big data also allows us to predict better decisions, so we theoretically use big data, both in terms of prediction and knowledge of marketing behavior, to help us make the best predictions of business decisions and promote production success .

For all marketing environments, we have demonstrated the positive impact of the combination of marketing behaviors and the "market turbulence" model and method regarding early decision-making and production development.

## REFERENCES

- [1] TechAmerica Foundation's Federal Big Data Commission, 2012
- [2] TechAmerica Foundation, Demystifying big data: A practical guide to transforming the business of Government. 2012 <http://www.techamerica.org/Docs/fileManager.cfm?f=techamerica-bigdatareport-final.pdf> VanBoskirk, TechAmerica Foundation's Federal Big Data Commission.
- [3] Frank Germannb, Gary, Arvind Rangaswamy, Performance implications of deploying marketing analytics – Intern. J. of Research in Marketing 30, USA 114–128, 2013, journal, [www.elsevier.com/locate/ijresmar](http://www.elsevier.com/locate/ijresmar).
- [4] ärvinen, Karjaluoto, H, The use of Web analytics for digital marketing performance measurement, Industrial Marketing Management 2015, <http://dx.doi.org/10.1016/j.indmarman.2015.04.009>
- [5] Xu, Z, al, Effects of big data analytics and traditionalmarketing analytics on new product success:Aknowledge fusion perspective, Journal of Business Research, <http://dx.doi.org/10.1016/j.jbusres.2015.10.017>. 2015.
- [6] Sathi, Engaging customers using big data: how Marketing analytics are transforming business. New York: Palgrave Macmillan. Srinivasan, 2014
- [7] Forrester, Expand your digital horizon with big data, [http://www.asterdata.com/newsletter-images/30-04-2012/resources/Forrester\\_Expand\\_Your\\_Digital\\_Horiz.pdf](http://www.asterdata.com/newsletter-images/30-04-2012/resources/Forrester_Expand_Your_Digital_Horiz.pdf) Access: Apr 21st, 2014

- [8] Nickerson, Zenger, A knowledge-based theory of the firm : The problem-solving perspective. *Organization Science*, 15(6), 617–632. 2004
- [9] Barney, Wernerfelt, Big Data Resources, Marketing Capabilities, and Firm Performance, 2016.
- [10] Calantone, Garcia, and Droge, The effects of environmental turbulence on new product development strategy planning, 2003.
- [11] Sunil Erevellesa, Nobuyuki Fukawab, Linda Swayne, Big Data consumer analytics and the transformation of marketing, *Journal of Business Research* ,<http://dx.doi.org/10.1016/j.jbusres.2015.07.001>, 2015.
- [12] Robinson, Min, Is the first to market the first to fail? Empirical evidence for industrial goods businesses. *Journal of Marketing Research*, 39: 120-128, 2016.
- [13] Covin, Slevin, Heeley, Pioneers and followers: Competitive tactics, environment, and firm growth. *Journal of Business Venturing*, 15: 175-210, 2000.
- [14] Lambkin, Pioneering new markets: A comparison of market share winners and losers. *International Journal of Research in Marketing*, 1992.
- [15] West, Wisdom in numbers. *ScientificAmerican*, 308(5), 14-14, 2013
- [16] Wernerfelt, A Resource-Based View of the Firm, *Strategic Management Journal*, Vol. 16, 171-174 , 1995.
- [17] Hart, Stewart, A Natural-Resource-Based View of the Firm. *Academy of Management Review*, 986-1014, 1995.
- [18] Moorman, Christine, Anne S. Miner, The Impact of Organizational Memory on New Product Performance and Creativity, *Journal of Marketing Research*, 91-106, 1997.
- [19] Hult, Hurley, Knight, Innovativeness: its antecedents and impacton business performance. *Ind. Mark. Manag.* 33 (5), 429–438, 2004
- [20] Song, Montoya-Weiss, The effect of perceived technological uncertainty on Japanese new product development. *Acad. Manag. J.* 44 (1)61-80, 2001.