Influence of Big Data Technology on Enterprise Marketing Strategy

Ling Miao

College of business administration, Jiangxi University of Finance and Economics, Fenglin West Street, Changbei Economic and Technological Development Zone, Nanchang City, Jiangxi Province, China

Keywords: marketing strategy, market, enterprises, big data

Abstract: In today's society, with the rapid development of Internet technology, we are faced with a veritable avalanche of different data. This effectively symbolizes the advent of the big data era. What new opportunities and challenges can this availability of information bring to our lives? How will the formulation of marketing strategies of related enterprises be affected and changed at the advent of this new era? In today's fast-growing Internet environment, how to entice enterprises to make rational use of the advantages available in big data, and how to guide enterprises to formulate and plan important marketing strategies are just two of the various practical problems that all entrepreneurs should be considering. This paper will focus on analyzing the actual impact of massive data and information on an enterprise's marketing strategy. At the same time, we should also put forward the optimal thinking with regard to guiding marketing strategies of enterprises through big data, according to the actual situation of those enterprises. The main purpose of this study is to actually help the relevant enterprises improve their ability to formulate marketing strategies in this new era of big data, At the same time, enterprises should learn to use big data as a means to influence and create the new advantages and driving forces that are conducive to enterprise development.

1. Introduction

In today's society, almost everyone has been exposed to news reports discussing big data technology. Therefore, for those who have just come into contact with this new technology and are not very clear about its essence, what is big data? This is what we all want to learn. Under the background of "Internet plus", big data is a new technology and a special phenomenon that has been born in the era of transportation. Scholars who have researched this technology have written in detail about how big data is a technology that can be divided into four levels and can be widely applied in different disciplines, and even in our daily lives. Big data can be understood to be an interdisciplinary concept. In a new field where there is nothing, science, technology and humanistic and social knowledge have been combined to create countless new products. With the development of science and technology and under the background of the explosive growth of data, big data came into being. If one combines the characteristics of big data, based on 4V theory and focuses on the intersection of big data technology and humanities, then doing a good job in the application of big data technology and 5V could potentially promote the development of society and become the progress of the times. This

phenomenon is the epitome of the current rapid development of electronic information technology, which is also widely referred to as massive information mining. For big data, there is a more popular explanation. Specifically, with the continuous progress of the scientific and technological level of the times and the rapid development of Internet information technology, one can see Internet terminals (such as computers and smart phones) almost everywhere. This means that we need to deal with very large-scale data and information in our daily lives. The magnitude of data storage we have has now greatly exceeded the number of data storage we have had available in any previous period of time. The massive amount of stored data is very important to society as a whole; even the relevant government departments and institutions are not exempt from the influence and opportunity presented by big data[1].

All scholars generally agree that big data has the following three characteristics: huge volume, various data types, and a general reduction of the value density of information and data under the background of such a large volume. These big data characteristics create a large amount of cumbersome data or information that can no longer attract the concern and attention of enterprises or relevant users. For this precise reason, big data can easily cause enterprises to encounter blind spots in their data or information when formulating marketing strategies. Moreover, in the macro policy environment (built by the government for big data technology), one of the most important recommendations of the 13th Five Year Plan is the national strategy on how to effectively implement the national big data strategy. In addition, this technology should be used to reasonably promote the sharing and opening of data resources. With the continuous development and maturity of big data technology, the emphasis for enterprises is to make rational and effective use of the advantages and strengths contained in big data, in order to guide the formulation and planning of future marketing strategies. At the same time, when formulating relevant marketing strategies, enterprises must make unified decisions and analyses from a macro perspective, in combination with the guiding ideology of big data[2]. Enterprises must also understand market trends in real time. By doing so, enterprises can avoid the embarrassing situation of finding it difficult to grasp the real needs of market consumers in traditional marketing strategies. Enterprises can finally formulate the best feasible marketing strategy and scheme, in order to make their marketing more efficient and accurate.

2. Advantages of Big Data Technology

We are currently living in an era of information explosion. With the rapid development of Internet technology, it is crucial that the three words "stable, accurate and fast" are reflected in an enterprise's marketing strategy. Nowadays, almost everyone has a mobile phone. In fact, the mobile phone is an intrinsic part of daily life. Basically, all mobile devices exist as a means to bind people with other people. Mobile phone use has led to changes in the ecological structure and environment of the whole Internet. Since the establishment and development of China's Internet technology and infrastructure, the total number of Internet users has reached 772 million, accounting for one fifth of the world's Internet users. In addition, in line with the growing strength of China's national economy and the improvement of living conditions, the number of mobile phones per capita in China has increased the number of mobile phone users to 1.403 billion. In addition, the average traffic generated by these users is 2.25g[3]. One can see behind these figures to find that the mobile Internet service has further increased and expanded the already huge data volume. With this as the background, big data technology came into being, and the birth of this technology has caused earth-shaking changes to traditional Internet marketing strategies. Moving on from the traditional marketing mode that was designed only for electronic desktop computer equipment, attention must now be paid to the important impact of electronic information equipment on users' behavior. In particular, the rise of social chat software and the birth of various real-time communication categories app have become

especially hot topics in the field of mobile electronic devices. The data generated through mobile Internet and other devices show a trend of gradual increase and variety. This helps us understand that human beings cannot in today's era be separated from the mobile Internet devices all around us. Naturally, this group of Internet devices has also become a large body of marketing tools.

Secondly, as mentioned in the previous paragraph, the data generated by the Internet is growing. Therefore, the analysis and research of these data have become both a link and a future orientation that enterprises should pay great attention to in their future marketing. The use and popularity of many search engines cause the number of search results to increase by hundreds of millions of times a day. Behind this number, there is a monumental data and information flow rate. In the traditional concept, the notion that structured data occupies the main position in information and data volume has disappeared. Now, this concept has been replaced by unstructured data. These unstructured data virtually blanket the various fields everyone is familiar with, such as social software, web pages, clicks, and incoming and outgoing calls. The mail stored in the mailbox and the online transmission of files all represent unstructured data that have gradually occupied the mainstream position in the era of big data.

Finally, the specific analysis and research into the corresponding user behavior has become a new basic focus point in enterprise marketing strategies. In the above, the context and possible impact of big data technology are briefly analyzed[4]. As this technology develops, corresponding to the change of user specific behavior, it will further promote the increase of big data volume and flow rate. Therefore, this means that, when studying the impact of unstructured data, the specific behavior of users will have an important impact on our research approach. This also means that marketing entities should pay full attention to this research. The analysis of users' specific behavior is clearly an important direction to follow when considering the transformation of traditional marketing under the background of this era of big data.

3. Impact on Marketing Strategies

This part is mainly divided into three points. The previous article which made by scholar Luo Zhe has also laid a good foundation for the development of this problem[5].

Firstly, the trend caused by this new technology can improve the availability of data. Now, one can obtain the highly transparent data we need from more channels. 'Precision marketing customization' is common in today's big data context[6]. These words symbolize that some electronic information manufacturers are more willing to try to combine data under different systems than ever before. What's more, many manufacturers will try to obtain the necessary data from the network suppliers and customers accessible to the enterprises from outside the environment. The obtained data can then be used to develop and promote a company's new products. An enterprise's R&D, and the promotion of a new product within the enterprise itself, are no longer limited to the user behavior or the preferences of corresponding users in the traditional concept. Now, in the formulation of marketing strategies, enterprises can pay closer attention to the use preferences of a wider range of both existing users and potential users.

Secondly, the precision marketing customization mentioned in the first point will have a timely impact; enterprises can have a faster response speed than ever before when obtaining users' relevant needs. Enterprises will be able to grasp the real needs of users in the market more quickly; they can also carry out product R&D and promote products to potential consumers according to this actual demand. Big data technology can also better enable users to experience customization. This is a real-time interactive customization behavior, which can give users a different experience and give their customized products real-time personalization. The basis of this service is the hot spots in the Internet, as well as the traffic generated by click data[7]. These are the bases upon which enterprises

successfully track user trends in the market and modify and correct user preference settings. Building on the foundation laid by the above work, we can further and better simulate a specific user preference in real time, thereby enabling enterprises to appropriately customize their new and future products. In addition, behavior data can be generated by some consumers' purchase processes, or, conversely, consumer behavior data can be generated by the visits or transactions of the remaining consumers of the same type. Collecting these data together for unified similarity analyses can help enterprises successfully recommend and develop the products they need to provide to consumers. The combined data can also predict, in advance, what type of products consumers in the market need. These data can be classified into the scope of precision marketing customization. For example, a well-known supermarket will record the purchase preference data of consumers for a period of time. Then, the supermarket will place the most popular products in places that are easy to reach or can be seen at a glance. These are the types of improvements to marketing strategies that can be made by a supermarket or enterprise, according to the correlation analyses of the relevant data in hand.

Finally, the inherent big data characteristics of fast generation and flow rate can well enable enterprises to carry out marketing activities[8]. Big data gradually transforms originally unseen and uncontrollable situations into experiments on controllable variables and controllable risks in new fields. This exact type of experiment is used to verify the excellence of a company's specific decisions in their marketing strategy[9]. In addition, a further analysis of the results obtained from the experiment, combined with relevant data analysis software or widely-used social software, can help enterprises make feasible modifications and improvements to specific investment decisions made by those enterprises. These can be decisions related to advertising, personnel promotion, public relations and business promotion[10].

4. Improvement Measures

Therefore, given the influences described above, what practical adjustments and changes do enterprises need to make in the formulation of marketing strategies, particularly in combination with the background of the times? Having carefully considered this issue, the author believes that enterprises should make the following, specific adjustments:

First of all, original enterprises need to innovate and adjust their traditional marketing models, and the potential value of the new marketing model should be increased. With the earth-shaking changes in the enterprise environment, the original traditional marketing model has gradually changed from being merely a monotonous investigation in the search for users, to becoming a process of in-depth data mining for sales channels. This new approach will help expand the scope of the original users and bring attention once again to the users who are not within the scope of the enterprise. This can and should happen, because big data technology can enable companies to have the unprecedented ability to understand users' specific preferences. Further, enterprises should investigate and understand the feelings of consumers and potential consumers as they relate to the company's brand. In addition, this survey allows the response to the market launch of the company's new products to be known in advance. The combination of marketing behavior and big data technology can better enable enterprises to dig deeper into the available internal data, which in turn allows enterprises to find feasible solutions to the practical problems that currently exist in marketing. At the same time, big data technology can appropriately optimize and improve enterprises' marketing strategies. Even as a product is being operated, the enterprise that supplied the product can use big data technology to collect relevant data about the product in real time. The enterprise can then interact with the customers using the product, in real time, according to the collected data. The enterprise can also obtain the flow of customers in the store in real time, as well as the specific preferences of customers as they relate to the company's product, the timely mastering and understanding of the situations mentioned above

is conducive to helping marketing R&D personnel make feasible and optimal adjustments to various product settings that users can access. Those adjustments could even include the design of some products' outer packaging, or improving and increasing certain internal elements. Relevant enterprises can conduct real-time monitoring of customers' consumption process. Then, according to the real needs of enterprises, a benign interactive mode could be formed between the monitored data and the produced products. Realistically, making timely adjustments to certain settings of some products could improve the profit margins generated through marketing.

Secondly, in the era of big data, one can grasp the specific description of consumers better now than ever before. The trend of big data can help us obtain more detailed and rich data pertaining to consumers and potential consumers. For example, enterprises could mine the data generated by the web pages viewed by millions of consumers, the data generated on social networking sites or chat apps, or the geographic data of the market in which a product is launched. Through the acquisition of these data, the behavior patterns of consumers and potential consumer groups that deal with enterprises are described in greater detail. In marketing behavior, insight into consumer behavior is the most important link between enterprises and consumers. An accurate description of consumer behavior can help enterprises identify consumer behavior more precisely. This, in turn, can help enterprises carry out more accurate promotion or preferential behaviors in the market, thereby attracting more consumers to make purchasing decisions. Having a more accurate understanding of the division of consumers in the market can help enterprises form a very fixed group model of the targeted consumer market. Enterprises can even create and identify a more detailed division of consumers by using big data technology. No longer is this process a simple division of consumers (as in the previous traditional model); now, a more personalized and specialized division can occur.

Finally, the precision marketing mentioned in the above section can be further realized by virtue of the development of big data technology. Specifically, the big data trend can help enterprises better realize the demand for precision. Specifically, this refers to the people, time and place behind consumption. Once a standardized big data model is formed in an enterprise, then that enterprise can integrate the consumption records or web browsing records generated by a specific customer or customers. After integrating the information obtained from these records, the group of consumers can be further divided and determined. Then, by proposing targeted and attractive preferential policies for this group, the relevant enterprise can also formulate communication methods that meet the preferences of this specific consumer group.

5. Summary

This article was mostly devoted to explaining big data technology to the readers, as well as the challenges and opportunities for enterprise marketing under the background of big data. The purpose of doing so was in the hope that readers could understand that this technology has experienced incredible development from its birth to the present. Granted, there are still many technical problems to be solved in the current integration situation. However, the changing trends brought to us by the era of big data are an unavoidable fact of the traditional marketing model in today's enterprises. In enterprises, marketing is the most important link with product consumption; there is no doubt that marketing directly affects the sales of enterprise products. Under such a premise, how to better combine the background of the times and develop better marketing strategies by using this technology is a problem facing all enterprises. If these problems are solved properly, big data technology will help enterprises do a better job of obtaining stable potential consumer groups and better maintaining the original consumer groups. Big data can enable enterprises to obtain more stable and considerable interest income through such efforts. Through the specific application of big data technology in enterprises' marketing strategies, the specific problems existing in the enterprises' current technology

can be found and fed back to the relevant scientific researchers. Experts can then help the enterprises solve these problems and improve the big data technology. This is a win-win model, which offers the prospect of an extremely perfect and brilliant future. Combined with the literature review and backtracking in the research, one can find that big data technology can help enterprises be more targeted in the process of formulating marketing strategies. In subsequent optimization steps, enterprises should also label their existing customer groups and improve the private customization of their marketing strategies.

As to the limitations of this paper, there is too much theoretical backtracking in the research. Due to the influence of objective factors such as time and space, this paper could not carry out targeted case enterprise tracking research in the writing process. Therefore, the final analysis conclusion of this paper lacks certain standing. In the follow-up research, combined with the improvement of objective conditions, the author will also select appropriate case enterprises to carry out targeted tracking research, and the article will be modified.

In the era of the geometric explosive growth of data, it could be predicted that the affairs closely related to our daily lives will be completely changed by big data technology. In addition, almost everything we touch will be innovated. Therefore, as the pioneers of the construction of a new era, we should grasp the core of big data technology in time and escape from the traditional thinking paradigm. New ideas should be used in the new era to better contribute to socialist construction.

References

[1] Ducange P, Pecori R, Mezzina P, (2017) A glimpse on big data analytics in the framework of marketing strategies. Soft Computing, (5/6):1-18.

[2] Jobs C G, Aukers S M, Gilfoil D M., (2015) The impact of big data on your firms marketing communications: A framework for understanding the emerging marketing analytics industry. Academy of Marketing Studies Journal, 19.

[3] Meng X C, (2018) Exploration of enterprise marketing strategy in the era of big data. Mall modernization, (2): 75-76.

[4] Xie J, (2017) Research on e-marketing strategy of small and medium-sized enterprises in the era of big data. Digital users, 23 (25).

[5] Luo Z, (2018) Discussion on consumer behavior and precision marketing in the era of big data. Contemporary economy, (04): 64-65.

[6] Chen Z, Lin J, (2017) What is big data. Computer knowledge and technology, 13 (13).

[7] Yang Z Y, (2021) Research on marketing strategy improvement of food enterprises based on big data mining. Food research and development, 42 (17): 235.

[8] Li J F, (2021) New direction of marketing reform and development under big data environment. China market, (29): 115-116.

[9] Feng K Y, (2021) Research on enterprise marketing strategy under the background of new economy. Marketing circle, (33): 43-44.

[10] Zhou F F, (2021) Discussion on enterprise marketing strategic thinking in the era of big data. Fortune today (China intellectual property), (09): 97-99.