CORRELATION BETWEEN IMPULSIVE CONSUMPTION AND CORPORATE SOCIAL RESPONSIBILITY: AN ANALYSIS BASED ON COGNITIVE SCIENCE

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Abstract

Corporate social responsibility (CSR) is critical to the healthy development of enterprises. Based on cognitive science, this paper explores the correlation between the impulsive consumption of the consumer and the CSR of enterprises. First, the relationship between the CSR and the consumer’s sense of identity (CSI) was explored statistically on SPSS software. A total of 100 consumers were selected to rate the CSI of the 100 Chinese enterprises listed as the Global 500 in 2017. Then, the author discussed the relationship between the average score and the total contribution score of enterprises, revealing a positive correlation between the contribution value and the CSI. Next, the positive correlation between the CSI and impulse consumption was derived theoretically, i.e. the CSR promotes the CSI, which in turn bolsters the impulsive consumption. To sum up, the CSR has a promoting effect on impulsive consumption. The research findings highlight the importance for enterprises to shoulder their CSR.

Key words: Corporate Social Responsibility (CSR), Impulsive Consumption, Cognitive Science, Correlation.

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INTRODUCTION

Along with the development of economy, the number of enterprises has skyrocketed and contributed a lot to the country’s GDP. However, with the development of society, corporate responsibility has gradually become the hot topic of the society. In order to further promote the healthy development of enterprises, the government pays more and more attention to the construction of CSR. On the basis of cognitive science, this study probes into the correlation between consumer’s impulsive consumption and CSR. It can be seen from the study that the construction of CSR can promote the occurrence of customer’s impulsive consumption behavior to a certain extent, thus driving the construction of CSR.

The studies of consumer’s purchase intentions and CSR began with foreign scholars. Blumenthal & Bergetrom (2003) investigated consumption behavior, finding that 89% of consumers would support the enterprises with high social responsibility by purchasing the products and stocks of the enterprises. Mohr & Webb (2005) studied the influence of enterprises that made different efforts in public welfare and environment protection on stimulating consumer’s temporary consumption behavior. The two scholars set up different consumption environment, and concluded that enterprises with high social responsibility would have positive influence on impulsive consumption behavior. Bergami & Bagozzi (2000) found that consumer’s impulsive consumption would be affected by CSI. In his book How We Decide (Xie & Zhou, 2009), Jonah Lehrer proposed that the generation of consumer’s impulsive consumption psychology was often stimulated by “emotional brain”.

The studies of domestic scholars started a little later. In 2009, Xie and Zhou (2009) concluded that
high CSR would produce good corporate reputation and brand image, which would directly make customer produce sense of identity to the enterprises, thus indirectly affecting consumer’s consumption intention. In his study of the influence of perception and expectation of CSR on consumer’s purchase intentions, Li Junwei holds that consumer’s expectation gap of CSR will affect the purchase desire and consumption behavior. If the gap is big, consumers tend to be reluctant to buy products of enterprises with poor social responsibility (Jiang & Benbasat, 2007). Thus it can be seen that the current studies on the correlation of CSR in China mainly focuses on the influence of CSR on consumer psychology and purchase behavior, but there is no more further research. Most studies based on cognitive science are about the influence of corporate damaged reputation on consumer choice (Wells, Parboteeah, & Valacich, 2011; Parboteeeah, Valacich, & Wells, 2009).

To sum up, most scholars have studied group decision-making behavior from the perspective of theory in the past. They have analyzed and studied theories and model methods of consumer’s consumption intention and consumption behavior. However, this study will deal with this proposition through a mathematical model based on statistics principle. The characteristic of this study is that it is divided into two parts: (1) it explores whether there is a correlation between CSI and CSR through data. (2) On the basis of previous studies, it demonstrates that the high CSI will positively affect consumer’s impulsive consumption psychology, thus making consumers produce impulsive consumption behavior by theories. Based on cognitive science, this study probes into the correlation between impulsive consumption and CSR, and then comes to the conclusion in two steps through the combination of theoretical research and data so as to achieve the purpose of this study.

In the introduction part, this study elaborates the research course of studies on the correlation between social impulsive consumption and CSR based on cognition, and combs the research results at home and abroad. On the basis of the elaboration of the proposition, it divides the proposition into two parts. Then it chooses the corresponding research methods according to the characteristics of each part, and puts forward the research problem. In view of this research problem, it makes basic assumptions, and conducts correlation test, and elaborates the process and data results of the correlation test in detail. Finally, the second part of the study is carried out through theoretical research and a conclusion has been drawn.

ELABORATION OF PROPOSITION

Cognitive science

The concept of cognitive science was roughly formed in 1975, mainly including philosophy, psychology, linguistics, anthropology, computer science, and neuroscience. Later, it got a new development. In fact, cognitive science is the science taking cognitive process and its law as the research object. People’s thoughts and behaviors are determined by their minds. As neuroscientist Antonio Damasio said more than a decade ago, people use both half of their brain’s rationality and half of sensibility when they buy. Therefore, on the basis of the previous studies, we use the theories that have been demonstrated to explore the psychology with high sense of identity to enterprises in an environment with stimulating consumption contact will more easily stimulate consumer to produce impulsive consumption behavior.

Impulsive consumption

Impulsive consumption refers to the purchase behavior stimulated by the external environmental factors under the condition that the consumer hasn’t planned in advance. The core of impulsive consumption is the temporary buying behavior of customers, which is completely sudden. The types of impulsive consumption are: pure impulse type, stimulation impulse type, plan impulse type. The first is the most spontaneous, the second type is the unsatisfied customers who are attracted by brand and publicity, and the last is the customers who want to buy things and temporarily buy before they make plans. When knowing the supermarket has discount, the customers will go to buy the discounted goods. This kind of behavior doesn’t belong to impulsive consumption because customers have realized thinking and arrangement. Therefore, this study will choose the sense of identity in cognitive science as a bridge to explore the correlation between impulsive consumption and CSR.

CSR

After the two industrial revolutions, the social productive forces had a qualitative leap. With the awakening and development of economy, the enterprises have gradually emerged and become prosperous with the number skyrocketing. Corporate culture has also gradually become the symbol of each enterprise’s personality and CSR has
gradually become the core of corporate culture, which means that enterprises need to bear the corresponding responsibility not only for shareholders, partners and employees, but also for consumers and social affairs while creating the benefits. This means that enterprises can’t regard the profit as the only goal, but should pay attention to the individual value realization of employees and the contribution to the society in the operation process.

In China, CSR received extensive attention from the early 21st century to 2006. Article 5 of the Company Law of the People’s Republic of China was implemented in 2006, stipulating that companies must abide by the laws and regulations, comply with social morality, commercial ethics, be honest and trustworthy, and accept the supervision of the government and the public, as well as bear social responsibility in business activities. The legal rights and interests of companies shall be protected by law and won’t be infringed. Subsequently, various domestic academic institutions and organizations began to extensively study and discuss the contents of CSR. Along with the economic development, the number of enterprises has soared and the government has also begun to pay attention to the construction of CSR. For enterprises themselves, achieving the balance between social responsibility and economic responsibility is conducive to building unique corporate culture, embodying the personality and characteristics of enterprises, realizing the value of employees, and enhancing the core competitiveness of enterprises so as to establish good images and reputations and absorb more talents for enterprises.

CSR mainly includes four types: economic responsibility, moral responsibility, legal responsibility and charity responsibility. Whether an enterprise fulfills the social responsibility is judged from the eight major social responsibility and ten principles. Therefore, we choose ten aspects related to CSR for evaluation, carry out comprehensive scoring on 100 enterprises among the Global 500, and obtain the responsibility score data of enterprises.

**RESEARCH PROBLEM**

This study is mainly divided into two steps:
(1) Whether there is a correlation between CSI and CSR is studied through the data.
(2) On the basis of previous studies, it is demonstrated that high CSI will positively affect consumer’s impulsive consumption psychology, thus making consumers produce impulsive consumption behavior by theories.

**EXPERIMENTAL DESIGN**

This study issues questionnaires to 200 consumers who are asked to score the degree of identity of 100 enterprises. The full score is 10 points. 10 points mean “especially satisfied” and 1 point is “not satisfied”. Consumers will score based on their impression of the enterprises. 147 questionnaires are collected and the scoring of 147 questionnaires is sorted out. After the unreasonable data are removed, the average score of degree of identity of 100 enterprises is obtained, which is a relatively reasonable value to reflect consumer’s CSI. Finally, a set of data are obtained: N = 100, the contribution value of enterprises (M), and CSI (N).

**STUDY PROCESS**

Studying whether there is a correlation between CSI and CSR
First of all, according to the statistics principle, we use SPSS software to make a normal test of 100 contribution values of 100 enterprises, and the result is as follows:
Hypothesis $H_0$: $M_i$ obeys the normal distribution
Hypothesis $H_1$: $M_i$ doesn’t obey the normal distribution
The statistics of Kolmogorov-Smirnov is 0.15, $p$ is smaller than 0.000, and the statistics of Shapiro-Wilk is 0.8, $p$ is smaller than 0.000. All of them are smaller than 0.05, then the original hypothesis $H_0$ is rejected, that is, $M_i$ doesn’t obey the normal distribution. Figure 1 shows the Normal Q-Q Plot of contribution value, confirming this conclusion.

**Figure 1. Normal Q-Q Plot of contribution value**
Then, the dependent variable is Log, and a new variable $M_i' = \log(M_i)$ is generated. The new dependent variable is carried out normality test:

Hypothesis $H_0$: $M_i$ obeys the normal distribution
Hypothesis $H_1$: $M_i$ doesn’t obey the normal distribution

The value of Kolmogorov-Smirnov is 0.085, p of Shapiro-Wilk is 0.076. All of them are greater than 0.05, then the original hypothesis $H_0$ isn’t rejected, that is, $M_i'$ doesn’t obey the normal distribution. Figure 2 shows the Normal Q-Q Plot of $M_i'$, confirming this conclusion.

![Normal Q-Q Plot of dependent variable](image)

In the same way, the sense of identity is conducted normality test,

Hypothesis $H_0$: $N_i$ obeys the normal distribution
Hypothesis $H_1$: $N_i$ doesn’t obey the normal distribution

The value of Kolmogorov-Smirnov is 0.092, p of Shapiro-Wilk is 0.0823. All of them are greater than 0.05, then the original hypothesis $H_0$ is accepted, that is, $N_i$ obey the normal distribution.

Then the correlation between the two is studied, and the result shows that the correlation is 0.734. Therefore, there is a strong positive correlation between the two, that is to say, the higher the CSR, the higher the consumer’s CSI is.

![Table 1. Research data of correlation](image)

| Model | R  | R Square | Adjustment R Square | Std. |
|-------|----|----------|---------------------|------|
| 1     | .734 | .539     | .519                | .25147 |

Among the several responsibilities of enterprises, economic responsibility is the main one. The fulfillment of economic responsibility by an enterprise is a main component of the nature of the enterprise, which promotes economic development and social productive forces. That enterprises create more high-quality products and high-quality services will make consumers more satisfied. Finally, a virtuous circle is achieved, which is a win-win outcome of enterprises and consumers, that is, it can make customers more satisfied, bring more profits for enterprises, as well as be more conducive to improving consumer’s cognition degree for enterprises.

The enterprises actively perform legal responsibility and conducts operations on the basis of abiding by laws and regulations, and the activities and products of enterprises conform to the procedures and inspection of relevant departments, which will make consumers more reliable. Although the scope of the bad influence in this respect is greater, enterprises will make consumers produce brand reputation, promote consumers to deepen the sense of identity as long as they always adhere to honest operation without any issue relate to quality or produce any legal loophole.

In terms of morality, enterprises shall better spread high-quality corporate culture, promote the establishment of the role of moral model, restrain their own employees with higher requirements, and improve the standards and cognition degree of corporate culture so as to set up better corporate image and reputation, which can help them stand out. This is not only more conducive to making customers remember them, but also more conducive to spreading their high-quality image and enhancing the brand effect.

The charity responsibility of enterprises embodies the value of enterprises. The enterprises use part of their own benefits to contribute to the society and charity, which is a kind of economic activity. This promotes the cognition and concern of enterprises to the social public welfare, which will have a great influence on the attitude of consumers to the enterprises. Adhering to charity and focusing on charity will make enterprises establish a better image in the hearts of consumers, which will increase consumer’s goodwill towards the enterprises.

Enterprises perfect their own corporate cultures, promote the all-round development of employees, and give full play to personal value of employees, which will further promote the individual working ability and quality of employees so as to strengthen their sense of belonging to enterprises. Finally, improving the efficiency and strength of employees,
and creating a good working atmosphere can make enterprises produce better high-quality products and high-quality services, as well as help enterprises establish a more perfect corporate culture, further enhancing consumer’s CSI.

**Consumer’s CSI and impulsive consumption psychology**

There must be two necessary emotions generating when consumers produce impulsive consumption behavior: like and want. The former is a kind of pleasant feeling stimulated by the on-site environment while the latter is the root of impulsive consumption motivation and desire. When consumers walk into a store with no motivation at all, their selection process is closely linked to the formation of preferences. They make the final decision under the influence of emotions of “like” and “want”.

When browsing many brands, consumers automatically compare their memories with their immediate environment and objects, and then form purchase preferences based on their own feelings and impressions of brands. In the process, if consumers have previous experience of using the relevant products, such experiences will give them a specific impression on the products and ultimately affect consumer’s decision-making. Otherwise, consumers will make a rough judgment of the product based on their memory of the brand’s image, forming consumer’s preference. Preference stimulates the nucleus accumbens septi in the striatum, allowing it to further process the product value of enterprises.

In this case, the degree and specific impression of this preference will directly determine the consumer’s behavior. If the consumer has a high sense of identity to the enterprise, this will affect the consumer’s judgment of the enterprise products so that the consumer generates a “value for money” evaluation, and the consumer’s brain is guided to produce “like” emotion and cognition for the product. When the “like” emotion accumulates to a certain value or is stimulated by a certain point such as the arrangement, packaging and publicity of the enterprise scene, the emotion becomes a signal that will reach the brain through the neural synapse. Then the brain processes the emotion to produce “want” emotion. This kind of emotion is spread as a signal, which will stimulate consumers to produce a kind of “want” desire. Generally speaking, when desire reaches a certain value, consumers will produce impulsive consumption behavior. Of course, this is also affected by a number of objective factors, such as whether consumers have bought a lot of things, whether the weather will make it inconvenient for consumers to take so many things so that consumers generate self-restraint emotions. However, our research lab is in a relatively objective general environment, so such a process will usually produce impulsive consumption.

Throughout the process, many areas of the brain are involved, including processing areas of language and image, and processing areas of memory and personal traits. At last, areas of the brain coordinate with each other, eventually promoting the entire process mentioned above. Therefore, we can draw a conclusion by combing the whole process that: the higher the consumer’s CSI is, the easier it is to make consumers produce “like” and “want” preferences to the enterprise products and impulsive consumption behavior.

**Correlation between impulsive consumption and CSR based on cognitive science**

Combining the above two steps, we can conclude that the higher the CSR is, the higher the consumer’s CSI is, which will make it easier to make consumers produce “like” and “want” preferences to the enterprise products and impulsive consumption behavior when they go to the shopping malls. Therefore, the promotion of CSR helps to increase the profit, promote the better development, and create a better atmosphere for the construction of economic environment for enterprises.

**CONCLUSIONS**

This study is divided into two parts: (1) whether there is a correlation between CSI and CSR is studied through data. From 10 core standards of CSR, the contribution value data of 100 enterprises in China are finally obtained. And then data of consumer’s CSI to 100 enterprises are obtained by questionnaire. Finally, the correlation between the two groups of data is studied by statistics principle, and conclusion has been drawn that the stronger the CSR is, the easier for consumers to produce CSI it is. (2) On the basis of the previous studies, it is demonstrated that the high CSI will cause the consumers to produce “like” and ‘want” emotions to the enterprise products, and positively affect the impulsive consumption psychology of consumers, thus making consumers produce impulsive consumption behavior.

Based on cognitive science, this study is carried out in two steps through the combination of theoretical research and data so as to achieve the
purpose. And conclusions has been drawn that the high the CSR is, the easier for consumers to produce impulsive consumption behavior it is.

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