# Literature Review on the Influence of Social Crowding on Indulgent Consumption

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**ABSTRACT.** As a ubiquitous phenomenon in our living environment, social crowding has gradually become a research hotspot in the field of marketing in recent years. However, this topic is still scattered in the current research, and a large number of studies focus on exploring the causes of social crowding, which attracts less attention in the field of consumption. The relationship between social crowding and indulgent consumption behavior is still unclear. Moreover, empirical studies on the industry are single, and in-depth mechanism research is also lacking. Based on the literature review, this paper constructs a comprehensive research model and puts forward some prospects for future research.

KEYWORDS: Crowd, Social crowding, Indulgent consumption

# 1. Introduction

With the continuous advancement of urban civilization and market economy, social crowding, as a common social phenomenon, often appears in the shopping environment. Consumer behavior such as queuing overnight or for hours to buy a product is antithetical to the current emphasis on user experience in corporate marketing. Therefore, in the context of experience economy, how social crowding influences consumption behavior and consumption tendency is of speculative significance, especially its influence on indulgent consumption behavior. According to the traditional logic, the crowded environment makes consumers unable to cope with the overload of information, the cognitive processing ability declines, and the emotional system dominates, thus they tend to adopt the indulgency consumption behavior that can bring temporary pleasure. However, from a cognitive point of view, the restricted space environment will enable consumers to have higher self-control, thus restricting indulgent consumption compared with hedonic products. In view of this, on the basis of reading and sorting out a large number of relevant literature, this paper, through sorting out the relationship between social crowding and indulgent consumption, constructs a comprehensive model, and puts forward a prospect for future research direction, so as to provide some reference for relevant research fields.

# 2. Literature Review on Social Crowding

In the initial stage, the study of social crowding only focuses on the subjective perception of individuals in the crowded environment, but does not specify the negative emotion. Later research has filled this gap to a certain extent, respectively from the social environment and individual psychology to explore the objective physical category of crowding and subjective individual due to the negative emotion of crowding.

# 2.1 The Definition of Social Crowding

In the latest study, Domestic scholars Shen Manqiong, Wang Haizhong and Hu Guimei (2018) redefined social crowding as a state in which individuals feel constrained due to the large population density per unit area, accompanied by uncomfortable subjective feelings such as anxiety and pressure. Some scholars also generalized social crowding as an attitude construct of evaluation, which leads to negative evaluation with the deepening predictability of crowding (Jens, Nina & Leif et al., 2019). Later, Huang Xuanxuan and Lin Delong et al. (2019) further expanded the definition of social crowding, holding that individuals could not get enough personal space due to the presence of others in the limited space constituted by the physical interface and could not fully control a complex psychological experience faced by social interaction with others.

#### 2.2 Measure of Social Crowding

As early as 1977, Heberlein and Vaske (1977) developed a nine-level scale to measure social crowding, which has been widely used. Since then, there have been some novel ways to measure social crowding. O 'Guinn, Tanner and Meang (2015) searched pictures of crowded environment by browser, trying to show the correlation between social crowding and social class.

In addition to scale measurement, quite a few scholars also measure social crowding by experimental method. One is visual simulation, which asks participants to rate crowding by showing them real pictures with varying Numbers of people. For example, in the experiment of Maeng, Tanner and Soman (2013), subjects were divided into non-crowded group and crowded group for corresponding study.

The second is the real-scene self-report method, which usually places the subjects in a real crowded environment and asks the participants how they feel about the crowding with a prepared scale. For example, Huang Xuanxuan and Lin Derong (2019) selected the exhibition hall as the experimental site and calculated the average number of tourists in the scenic spots at different times by manually calculating the visitor flow, so as to obtain the congestion density at different times.

# 2.3 Factors Influencing Social Crowding

Through the crowded field of research to society found in related literature review, factors that affect social crowded category multifarious, in this paper, the many kinds of factors as the internal factors and external factors, including internal factors mainly covers the basic characteristics of personal factors, including: gender (Zehrer & Raich, 2016), age (Leujak & Ormond, 2007), their own standards (Lu Wenyue, 2015), personal expectation and motivation (Bryon & Neuts, 2008). External factors mainly include spatial environment density, such as commodity quantity (Jacob & Schreyer, 1980), population density (Zhang et al., 2015), spatial layout (Kim et al., 2014). And social communication category factors, such as social interaction (Chang Yao, 2017), local affiliation (Li Li et al., 2016), cultural background (Jin et al., 2016).

# 2.3.1 Basic Personal Characteristics

Some researchers believe that in a crowded environment with the same spatial density, women have lower tolerance to crowding than men, and are more negatively affected by crowding (Zehrer & Raich, 2016). In terms of age, Leujak and Ormond (2007) found that with the increase of age, individuals have a more sensitive perceptual response to crowding, and older people tend to complain more about the crowded environment than younger people.

Other domestic scholars pointed out that in a crowded shopping environment, when individuals observe other consumers' behaviors in violation of public order, such as noise, clamor and so on, they are more likely to feel crowded than in the undiscovered state (Lu Wenyue, 2015).

# 2.3.2 Spatial Environmental Density

Some scholars have found that customers' perception of social crowding is closely related to the abundance of goods in shopping places. Because the limited resources will lead to the increase of customers' contact frequency, their perception of crowding will also gradually rise (Jacob & Schreyer, 1980). At the same time, in the study on the impact of population density on social crowding, Zhang et al. (2015) found in an experiment of diving sports that when divers could see 7 to 8 other athletes at the same time, such a degree of crowding was unacceptable. In addition, Kim et al. (2014) pointed out in their research that the layout of infrastructure is also one of the important environmental factors affecting social crowding.

#### 2.3.3 Social Communication Category

In some leisure activities, participants hold different emotional attitudes within the group. People are willing to have social interaction with individuals or groups that are similar to their personal preferences and pursue the same pursuit, so they have a high tolerance for crowding (Chang Yao, 2017). In addition, the research scholars found that hikers with a higher sense of place had a higher tolerance to crowding (Li Li et al., 2016). Jin et al. (2016) confirmed that different cultural backgrounds have different perceptions of social crowding in Xi 'an based on the survey of tourists' perception of tourist crowding in China, Japan and some European and American countries.

# 3. Literature Review on Indulgent Consumption

In the existing literature, most scholars do not distinguish between indulgent consumption and hedonic consumption, but indulgent consumption emphasizes long-term negative effects, while hedonic consumption focuses more on positive effects for consumers and rarely considers whether there are negative effects (Yang Shaoguang and Jin Liyin, 2018).

# 3.1 The Connotation of Indulgent Consumption

Indulgent consumption originated from the concept of hedonic consumption proposed by Hirschman and Holbrook (1982). He believed hedonic consumption is the sensory pleasure obtained by consumers in their consumption experience, as well as the emotional maintenance of hedonic products. Some scholars have pointed out that the scope of indulgent consumption includes self-indulgence in physical, mental and even moral aspects (Kivetz & Simonson et al., 2002). According to the development trend of these meanings, scholars' interpretations of indulgent consumption are more similar. In the latest research, some scholars still follow the previous viewpoints, such as Ted, Anastasiya and Yogesh (2019). When they studied that price discount can reduce the guilt of consumers in indulgent consumption, they believed that indulgent consumption can bring temporary happiness but bring considerable cost to long-term goals.

Since the definition of indulgent consumption in most literatures is very similar, this paper, based on previous studies, defines it as a consumption behavior that takes short-term pleasure as consumption intention but evolves into a negative result in the long-term perspective.

# 3.2 A Measure of Indulgent Consumption

The measurement method of indulgent consumption mainly adopts the experimental method. Scholars usually choose two different products at the two endpoints of "indulgences -- self-disciplined products (the opposite of indulgences)" in terms of objective properties as the measurement standard. In the study of indulgent consumption, Li Zhenquan (2017) used Google food categories with high search volume, such as chocolate, potato chips and other snacks, as characteristic test items with the tendency of indulgent consumption, and chose salad and rice as the representatives of self-discipline to compare the indulgent consumption. Similarly, Hock and Bagchi (2018) used 190 calories of mixed nuts and 15 calories of grapes and tomatoes as indulgenents and self-discipline respectively in the crowded experiment.

Other scholars have used fancier methods to determine indulgence choices. Yang Shaoguang and Jin Liyin (2018) pointed out that a certain attribute of the same product or activity can be perceived as indulgent or self-disciplined by manipulating its semantic framework.

# 3.3 The Outcome Variable of Indulgent Consumption

In academic research, scholars pay much attention to the causes of indulgent consumption, but research conclusions on the subsequent effects of this behavior are rarely mentioned. After sorting out the relevant literatures, this paper finds that the main research direction is polarized, and some studies believe that indulgence will lead to guilt (Li Aimei et al., 2014;Feng Wenting, 2016), and other studies suggest that indulgenent consumption will produce happiness (Li Qianqian and Gao Ying, 2018;Satoko & Takeshi et al., 2019).

Generally speaking, previous studies have suggested that indulgent consumption will stimulate consumers' guilt and guilt (Li Aimei et al., 2014). Some scholars have discussed this negative psychological state from the perspective of self-control, pointing out that consumers with a higher level of self-control tend to be highly sensitive to self-awareness and can usually feel regret and guilt immediately (Feng Wenting et al., 2016). However, in recent years, scholars have paid more attention to the phenomenon that indulgent consumption behavior can produce happiness. Some scholars have pointed out that consumers can personally feel different degrees of psychological satisfaction when experiencing indulgent consumption (Li Qianqian and Gao Ying, 2018).

There are theories to answer the seemingly contradictory conclusion that indulgent consumption leads to both guilt and happiness. Priester and Petty (2001) found in the study of ambivalence that people's emotions were not a single line from sadness to happiness. Therefore, after the occurrence of indulgent consumption behavior, negative and positive psychological states will interact with each other. Consumers are likely to be affected by mixed emotions, and each individual will have different emotional responses.

Another theory to explain mechanism is Yao Qing, Chen Rong or Su Huan (2013) think consumers in making the indulgence and self-discipline of purchase decisions will find self-discipline than practical quality content to an actual task in terms of the benefits, indulgence of hedonic experience even more difficult to assess and quantitative measurement. However, Li Qianqian and Gao Ying (2018) based their research on the happiness generated by indulgent consumption on the premise of consumers' experience of indulgent consumption due to their long-term efforts, which

provides sufficient justification for indulgent consumption and thus generates happiness.

#### 4. The Influence of Social Crowding on Indulgent Consumption

At present, the academic research on the theoretical mechanism of social crowding on indulgent consumption is still in the preliminary stage, and its conclusion is controversial to some extent. At the same time, complete direct research and related mechanism research are lack of Chinese context.

First of all, Xu and Albarracin (2016) explained that the limited physical space can strengthen the control of indulgence and thus reduce the level of indulgence from the perspective of cognitive control. In two experimental studies, they established a causal relationship between spatial constraints and self-control between impulse-induced indulgent buying and impulsive indulgent eating (such as chocolate, cakes and other high-calorie foods).

However, Hock and Bagchi (2018) proposed that consumers would be distracted by information overload in a crowded environment, which would lead to a decline in cognitive processing ability and a greater reliance on emotional processing, thus increasing calorie consumption and the level of indulgence consumption. The decrease of attention caused by social crowding makes consumers not only unable to code the current food, but also unable to retrieve the information of previous food intake and less worried about the consequences (Wansink & Brian, 2014). So they rely on their emotional response to food, which leads them to consume more indulgent foods.

In the study of social crowding on indulgent consumption, the above researchers all adopted the experimental method. The respondents were all college students, and the industries they investigated were all catering. Why do they come to two completely different conclusions? The reason may be that they choose different mediation mechanism.

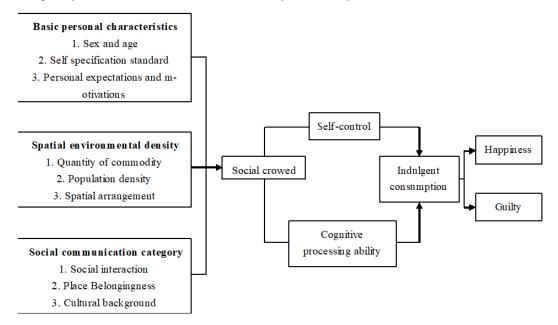


Fig.1 A Comprehensive Theoretical Model of Social Crowding Against Indulgent Consumption

Based on a large number of literature review, this paper constructs a theoretical comprehensive model of the antediluents of social crowding, the mechanism of social crowding and indulgent consumption, and the outcome variables of indulgent consumption, which are concerned by scholars in the existing literature, and presents the context of the existing research.

# 5. Conclusion

Through literature review, it is found that, from the perspective of research methods, scholars have conducted in-depth research on the influence of social crowding on indulgent consumption mainly through experimental methods under two mechanisms of self-control and cognitive processing ability. The former emphasizes that the perception and tolerance of crowding are also different due to individual differences in physical structure, attitude towards interpersonal relationship and social interaction intention in different crowded environments. If an individual encounters the exhaustion of self-control resources in social crowding, the expenditure on indulgent consumption will increase significantly. On the contrary, it will reduce indulgent consumer spending. From the perspective of cognitive processing ability, the latter believes that consumers face information overload and cognitive load in a crowded environment, which leads to a decline in information processing ability and processing ability. Consumers are no longer equipped with rational thinking of higher-order cognition, but are more inclined to perceptual thinking of lower-order cognition to make corresponding consumption decisions.

However, it is not difficult to find that scholars usually fixate on the scene of social crowding in the catering industry, choosing food as indulgent consumer goods, and taking calories consumed by people as the basis for indulgent consumption. Even so, the food industry, in view of the society and indulgence consumer Shen Manqiong, Wang Haizhong and Hu Guimei (2018) pointed out that in the future study, can jump out of the common consumer place scene framework, to explore in the field of a broader consumption, such as health care, tourism, transportation, frequent crowded phenomenon such as charitable donations of retail consumer sector.

Based on this, this paper puts forward a prospect for future research. First, future studies can introduce non-food industries, such as the medical industry, for comparative studies, in order to further understand the impact of social crowding and indulgent consumption; Secondly, existing studies have shown that the relationship between the two is not consistent. Future studies can start with mechanism studies to clarify how social crowding affects indulgent consumption, especially from the perspective of consumer psychology.

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