

“BRASIL, DECIME QUÉ SE SIENTE”: A STUDY OF AGGLOMERATION IN A STADIUM IN THE WORLD CUP

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ABSTRACT

This study investigates visitor reactions to the human and spatial agglomeration of World Cup stadiums, relating the variable of crowding perception to emotions and consumer's satisfaction. The largest world event based on a single sport, the Cup moves millions of tourists during the period of its accomplishment. Constantly explored in previous research, the perception of crowding presents a gap in the tangent to relationships established in entertainment environments. The quantitative research, based on the Machleit, Kellaris and Eroglu (1994) scale, presented 270 cases analyzed using

the Structural Equation Modeling method. The results indicate that the crowding of people in football stadiums during the World Cup triggers positive emotions in the consumer, contrary to most previous studies conducted in other types of environments. The perception of spatial crowding, in turn, maintained the negative character mostly attested by the literature, relating negatively to positive emotions. There was evidence that perception of human crowding influences more intensely on satisfaction than the perception of space crowding.

KEYWORDS: Perception of Crowding, Emotions, Consumer Satisfaction.

“BRASIL, DECIME QUÉ SE SIENTE”: UM ESTUDO SOBRE AGLOMERAÇÃO NA COPA DO MUNDO

RESUMO

Este estudo investiga as reações dos visitantes à aglomeração humana e espacial dos estádios da Copa, relacionando a variável percepção de *crowding* às emoções e a satisfação do consumidor. O maior evento mundial baseado em um único esporte, a Copa, movimenta milhões de turistas durante o período de sua realização. Constantemente explorada em pesquisas anteriores, a percepção de *crowding* apresenta uma lacuna na tangente às relações estabelecidas em ambientes de entretenimento. A pesquisa quantitativa, baseada na escala de Machleit, Kellaris e Eroglu (1994), apresentou 270 casos analisados pelo método de

Modelagem de Equações Estruturais. Os resultados indicam que a aglomeração de pessoas em estádios de futebol durante a Copa do Mundo desencadeia emoções positivas no consumidor, ao contrário da maioria dos estudos anteriores realizados em outros tipos de ambientes. A percepção do *crowding* espacial, por sua vez, manteve o caráter negativo mais atestado pela literatura, relacionando-se negativamente com as emoções positivas. Houve evidências de que a percepção do *crowding* humano influencia mais intensamente a satisfação do que a percepção de aglomeração espacial.

PALAVRAS-CHAVE: Percepção de Crowding, Emoções, Satisfação do Consumidor.

1 INTRODUCTION

The Soccer World Cup held in Brazil in 2014 aroused a number of interests that turned to the structural issues of the host country, such as the physical conditions of stadiums, airports, hotels and other service providers that national and international tourists could use (Medeiros et al., 2013, Raye et al., 2013, Santos, 2014). Besides these concerns, other studies sought to estimate the positive and negative impacts generated by the event, the largest in the world based on a single sport, in the country (Próni, Silva, 2012; Ribeiro et al., 2014). One of the focus of these studies was tourism, given the international resonance of the event and the movement of people from other countries in Brazil, which increased by 132% compared to the same period of 2013 (Portal da Copa, 2014).

The large influx of tourists of national or international origin moved crowds between stadiums and celebrations during the event, meeting the expectations of the Brazilian Tourism Institute (EMBRATUR, 2014), moving large financial figures in various sectors of the Brazilian economy. However, Courtine and Haroche (2014) caution that these same crowds that positively impact the economy can lead to psychological discomfort, as they relate to the fear of crowds and associated violence.

It is known, however, that the effect caused by crowded consumer environments is conditioned by a number of environmental factors, which may intervene in the intensity of the consumer's annoyance or even arouse positive reactions (Quezado and Moura, 2018; Quezado; Penaloza and Moura, 2018; Quezado; Frota; Costa; Arruda and Mota, 2016). Such a positive effect is mentioned in the study by Eroglu and Harrell (1986) and later reconsidered by Boyko and Cooper (2011), who claim to be the place where agglomeration occurs, decisive to define the experience of consumption as positive or negative. Still, Pons, Mourali and Giroux (2014) suggest the continuity of the investigation around the perception of crowding in different places of consumption, emphasizing entertainment environments.

Constantly described in foreign research as a relevant factor in the consumption experience (eg Machleit, Eroglu; Mantel, 1994; Eroglu Machleit; Barr, 2005; Pons; Laroche, 2007; Whiting; Nakos, 2008; Pons; Mourali; Giroux, 2014), the perception of crowding stands out in these studies due to the negative influence it can exert on consumer's satisfaction. Little academically investigated, entertainment densities in high density situation may hold divergent characteristics of a store environment with the same level of crowding. For example, there are indications that, at sporting events, crowding reactions may be positive, since they are not sites so heavily tied to utilitarian consumer values and usually attract tourists who yearn for experiences in these situations. The fact that services with hedonic characteristics are not related to the accomplishment of a purchase task - a benchmark of retail utility consumption - would make the negative effects of high density smoother (Pons, 2004).

In addition to the notable positive emotion generated by crowds at sporting events due to crowds, another feature that reinforces the positive crowding effect in these places concerns what Pons, Mourali & Giroux (2014) call rarity or scarcity of the product offered. Based on what these

authors explain, it is possible to assume that, although crowded, a sporting event such as the World Cup, held every four years, and therefore rare, would imply a greater propensity to positive emotions by the consumer and, consequently, in consumer's satisfaction.

In addition to contributing to the field of research inherent to the perception of crowding in a still scarce service environment, the relevance of investigating the phenomenon of crowding in the World Cup lies in the fact that this is the most profitable sporting event and Greater international prominence (Medeiros et al., 2013). It is extremely relevant for the understanding of the dynamics of tourism studies to continue investigating aspects of the World Cup, even before or after the event (Milito et al., 2015). Fressa et al. (2012) reaffirm the value of the Cup to Brazil, noting that organizing and hosting the event evidence the country in international news, attracting sports tourists and football consumers.

In this sense, the strong emotions experienced by the consumer in the World Cup stadiums, as well as the consequent satisfaction of consumption, would be conditioned by the circumstance of high density in a physical space, perhaps not prepared for this demand, a situation that is similar to what has been studied in marketing in the retail environment. However, according to the explanation, in entertainment venues, the crowding perception variables, emotions and consumer's satisfaction may assume different relations.

Thus, this article aims to investigate consumer reactions caused by the high density of stadiums in the World Cup period from the crowding perception, emotions and satisfaction variables, constantly explored in previous research, but still leave doubts on the tangent relationships established in different environments and situations of consumption.

For this, the empirical research is based on a quantitative methodology with a survey strategy. Using Structural Equation Modeling (SEM), with resampling techniques, to gauge the influence on satisfaction of the crowding perception constructs and emotions. The latter acting as mediator in the relationship.

From this introduction, the article is composed of five parts. The next topic addresses perception of crowding, satisfaction and emotions, as well as the theoretical hypotheses. The following are the methodological procedures and results, with statistical treatment and discussion. Finally, there are the final considerations.

2 PERCEPTION OF CROWDING, EMOTIONS AND CONSUMER SATISFACTION

Recent studies investigate the influence of the crowding phenomenon on consumer behavior in the Brazilian context (e.g. Brandão, Parente, Oliveira, 2010, Queão et al., 2012; Queão et al., 2012; 2001), which is based on the results obtained in the literature, and the results obtained in this work are presented in Table 1. (Mahler, Cox, Griffthis, 2012, Pons, Mourali and Giroux, 2014).

Theoretically, the perception of crowding is based on the high density of people or objects, two subdimensions that make up a multidimensional concept (Machleit; Kellaris; Eroglu, 1994). According to Hui and Bateston (1991), human crowding, based on the density of people, is a

response to the difficulty, or impediment, of the consumption activity due to the agglomeration formed by other consumers. The so-called space crowding occurs when this impediment is a reflection of the large quantity and precarious distribution of objects or of any other physical attributes of the consumption environment.

Based on this concept, the majority of researches that explore crowding situations point to consumer's reactions to high crowding as being mostly negative (Quezado et al., 2014). It is known, however, that the high density in the retail, for example, can be considered attractive, since agglomeration of products and people refers to low prices (eg Pons; Laroche, 2007; Wu; Luan, 2007; Brandão, 2012), which would attribute to crowding a positive character, positively relating it to purchase satisfaction. From the same perspective, Wu (2007) argues that in entertainment services, pleasure, tied to the consumer's experience, would attenuate the annoying sense of crowding and make the consumer more likely to feel satisfied.

Pons, Mourali and Giroux (2014) point out that future research involving agglomeration must consider the peculiar characteristics of each environment in a high density situation, since, in the literature, studies diverge with respect to the direction of the relation between perception of crowding and satisfaction, if positive (eg Kalisch, Klaphake, 2007; Whiting; Nakos, 2008) or negative (eg Han et al., 2010;

Thus, although there is disagreement about how satisfaction is constituted in an agglomerated environment, it is known that physical aspects of the consumer environment, including perception of crowding, strongly influence satisfaction (Quezado et al., 2012). Bitner (1992) emphasizes that the interaction between consumers - intensified in a crowding condition - is a key element in the evaluation of the shopping experience and, consequently, satisfaction. Thus, based on the above, and also motivated by the need to clarify theoretical gaps in what is related to the relationship between the variables in question, the following hypotheses propose that:

H₁: (A) The perception of crowding in space exerts influence on satisfaction as well as (b) the perception of human crowding influences consumer's satisfaction.

In addition to satisfying and perceiving crowding, Machleit, Eroglu and Kellaris (1994) argue that, besides establishing a direct relation, these constructs can be related indirectly, being mediated by other variables. In this perspective, studies indicate that the investigation of satisfaction in high density context demands to consider the mediating role of consumer affective states (Hui; Bateson, 1991; Eroglu, Machr, Barr, 2005; Cottet et al., 2006). As affection is an umbrella concept that encompasses a range of mental states (Bagozzi et al., 2002), for this study, the mental state of emotion is highlighted as a possible mediator of satisfaction in a crowded consumption environment.

Such mediation is due to the fact that a crowding situation can be identified as dysfunctional if it makes it difficult to carry out consumption activities, triggering in the consumer negative emotions, which would therefore negatively affect their satisfaction (Eroglu; Machleit; Barr, 2005).). On the other hand, high density situations, when comfortable or unnoticed as negative interferences, bring positive emotions to the shopping experience, which, in turn, contributes to the satisfaction of the consumer (Eroglu; Harrell, 1986). Thus, despite the lack of

empirical studies, it is assumed that emotions, both negative and positive, are mediators of the relation of perception of crowding and satisfaction (Pons et al., 2014).

Considering that in marketing, emotion is conceptualized as an affective response, triggered by a consumer experience (Holbrook, 2000) and that satisfaction results from the positive evaluation of that experience (Westbrook, Oliver, 1991). Proposed that, in concept, these two variables are correlated. It is then assumed that, in a crowding environment, consumer satisfaction is subject to the emotions aroused during this process, whether positive or negative. Therefore:

H₂: (A) Negative emotions measure the effect of perceived crowding on satisfaction, as well as (b) positive emotions. In addition, (c) consumer's satisfaction is negatively influenced by negative emotions and (d) positively by positive emotions.

Considering that works with an emphasis on the perception of crowding in service environments are still scarce (Pan, Siemens, 2011), the hypotheses that follow investigate the variables proposed in this research in stadium atmosphere, since, for the consumer, the aspects of the environment where the service is offered integrate itself into the service in terms of satisfaction, as well as, at the stage, the physical conditions in which it is presented are as relevant as the basic product offered, soccer (Westerbeek, 2000, Serarslan, 2014).

In reinforcement, Serarslan (2014) emphasizes the need to explore stadium environments and consumer satisfaction to meet consumer's demand for the physical aspects of this entertainment environment. For this purpose, Wakefield et al. (1996) developed a research dedicated to identifying consumer's perception in stadium atmosphere at baseball games, exploring physical characteristics of these places - especially those referring to accessibility - as factors that influence the affective response of the consumer. Likewise, the authors emphasize the relevance of considering the crowding perception as a determinant of the spectator's positive emotions in stadiums.

As managerial implications for retailing, Pons, Murali and Giroux (2014) indicate that, in order to reduce negative aspects of crowding perception, rare or scarce events, such as "lightning promotions", should be created, since the scarcity of the event functions as a tool to control negative consumer emotions that can emerge from high densities. In this sense, the authors present evidences that allow us to propose that in sporting events - with special attention to decisive games or rare championships, such as the World Cup - the human and space crowding conditions, which could imply negative emotions on the part of the consumer, would be mitigated by the situational variable of scarcity.

In addition to the rarity of the event, another aspect that can generate greater intensity of positive emotions in the crowded World Cup stadiums concerns what Scheve and Ismer (2013) call collective emotions. In this context, an individual who is prone to not tolerate the human crowding atmosphere, specifically, would possibly be "infected" by the positive emotions of the crowd. Thus, at the stage, individual negative emotions would give way to positive ones of the collectivity. It is supposed that this collective emotion would be further intensified in the World Cup, given the immense amount of people cheering for their respective teams.

Martin (2012) suggests that in football championships, where the consumer already expects, or even aspires, a high density of people at the stadium, accidental physical contact with other consumers, could not generate discomfort, which, consequently, would not provoke negative emotions. Also, the fact that the consumer aspires to a large number of people could lead to positive emotions when, at a crowded stage, this expectation was confirmed. Still in this perspective, Hightower et al. (2002) point out the intensity of noise in stadiums, a factor strongly related to the high density of people, as a stimulus that triggers positive emotions in the consumer.

With regard to the perception of spatial crowding (conditioned by accessibility, seat comfort, technological devices, etc.), it is believed that, although the negative emotions inherent in this dimension are mitigated by the above aspects, which reduce the perception of human crowding, these would not be sufficiently related to the physical characteristics of the stadium, still prevailing the negative emotions in response to the perception of space crowding. Thus, in stadium environment:

H₃: (a) The perception of human crowding triggers more positive emotions than negative emotions. However, (b) the perception of spatial crowding causes more negative emotions than positive ones.

In addition, considering the greater influence of the human dimension on the perception of crowding, attested in previous studies in the field of retailing (Michon et al., 2005; Quezado, 2013), it is believed that, in the measurement of the perception of crowding in environment of human agglomeration is also more influential than spatial agglomeration, which would result in a positive consumption experience at agglomerated stages, considering the theoretical support that supports H3 hypotheses.

According to Lin and Liang (2012), they emphasize the greater interference of stimuli arising from the human dimension in consumer satisfaction. For example, the authors hypothesize that in a restaurant atmosphere, rude and uneducated consumers would provoke negative emotions in an observant consumer to the point of dissatisfaction, even if the restaurant's physical structure was satisfactory.

As in the restaurant, but considering that, in the stadium, both crowding perception dimensions, human and spatial, would provoke more positive than negative emotions, it is assumed that, given the relevance of cheerleading rituals in soccer games Based on what Scheve and Ismer (2013) explain - environmental stimuli related to human density are more strongly representative in the evaluation of the experience of consumption and, therefore, in satisfaction.

In addition, the lower influence of the perception of spatial crowding on satisfaction can be assumed by the low interaction of the consumer with the physical environment of the stadium, when compared to other consumer environments, such as retail stores. At the stadium, the consumer remains in the same place most of the time and therefore accessibility, which is the most relevant factor in assessing the physical characteristics of the stadium (Wakefield et al., 1996), is little experienced. In this way:

H₄: The perception of human crowding influences more intensely the satisfaction than the perception of space crowding.

3 METHODOLOGICAL PROCEDURES

In order to reach the objective of this investigation, a quantitative research was carried out, since the quantification and statistical analysis of the data was sought (Creswell, 2009, Mesquita, Sousa, Martins & Matos, 2014). With respect to the objectives, it is characterized as a descriptive research, which is based on a data analysis with support on a quantitative basis and usually based on more formal and representative samples when compared to the exploratory (Malhotra, 2011, Rubin and Babbie, 2011). In this study, we sought to analyze by statistical variables the relationship between perception of crowding, emotions and satisfaction if purchased.

The instrument of data collection was a structured questionnaire, divided into two blocks. The first, on a 10-point Likert scale (being 1 point for totally disagree, or low intensity, and 10 points for full agreement, or high intensity), was composed of three scales: the Crowding Perception Scale of Machleit, Kellaris and Eroglu (1994), consisting of 8 items; the Satisfaction Scale of Machleit, Kellaris and Eroglu (1994), adapted by Brandão (2012), formed by 4 items; and the Izard's Differential Emotional Scale (DES), composed of 10 items, between positive and negative emotions. In a study by Quezado et al. (2012) in the Brazilian context of high density retail, 4 items of the DES were eliminated. For this research, we chose, therefore, the use of the scale adapted by these authors. Finally, the second block of the questionnaire was formed by items referring to the characterization of the respondents in gender, age, schooling and income.

In order to perform the research, a video was developed by the authors of the present study based on the characteristics of videos already produced in order to assess the perception of crowding in previous studies (eg Pons, 2002; Pons; Laroche, 2007). The video, which lasts approximately one minute and thirty seconds, presents a three-stage crowded stadium of the consumer experience: entry, stay in the stands during the game, and exit. Then, after the video presentation and before the questionnaire was applied, the respondents were asked to consider the experience presented in the video as experienced by them in one of the 2014 World Cup host stadiums.

According to Pons and Laroche (2007), to investigate perception of crowding, the use of video stimulus in detriment of the application of questionnaires in real environment is considered more adequate because it allows a greater control of the external variables that interfere in the measurement of the variables of the research.

The sample chosen was non-probabilistic for convenience, composed of potential consumers of the event: exclusively students from a private university in the city of Fortaleza, one of the cities selected to host 2014 World Cup matches. A total of 270 students responded Valid to the questionnaire by the paper-and-pencil method, after watching the video shown through projector and sound system in the classroom. According to Peterson (2001), the surveys with students are valid and representative of the collectivity.

For the analysis, we used descriptive statistics and multivariate data analysis. The research hypotheses were evaluated from the Structural Equations Modeling (MEE) (Blunch, 2012; Sharma; Durand; Gur-Arie, 1981; Fornell, C; Larcker, 1981) and reassessment (bootstrap) Of the model paths. The method of maximum likelihood (ML) was used as the method of estimation of the

measures, since the Likert scale of at least 5 points with measures of asymmetry ($Sk < 3$) and kurtosis ($Ku < 7$) do not impact on significant distortions of normality that affect the estimates of this method (Finney; Distefano, 2006; Kline, 2011). The variables, after the elimination of 14 outliers identified by the Mahalanobis distance technique (Arbuckle, 2009), presented values of $Sk < 2$ and $Ku < 6$. The statistical software used was the Statistical Package for the Social Sciences (SPSS) 22.0 and Analysis of Moment Structures (AMOS) 22.0.

4 ANALYSIS AND DISCUSSION

Composed of university students, the sample presents a high percentage of respondents aged between 21 and 30 years (68.3%) followed by the age range of 31 to 40 years (total of 31.7%). In relation to schooling, 61% have incomplete higher education, 28% have completed tertiary education and 11% have postgraduate studies. Regarding the demographic gender variable, 51% of the interviewees are male.

The validation of the constructs was carried out from Confirmatory Factor Analysis (AFC), adjusting the models from the elimination of variables that did not present individual reliability ($R^2 < 0.25$), according to Hair et al. (2009). After the elimination of six observable variables without individual reliability, the model presented convergent and discriminant validity and, then, the validation of the integrated models.

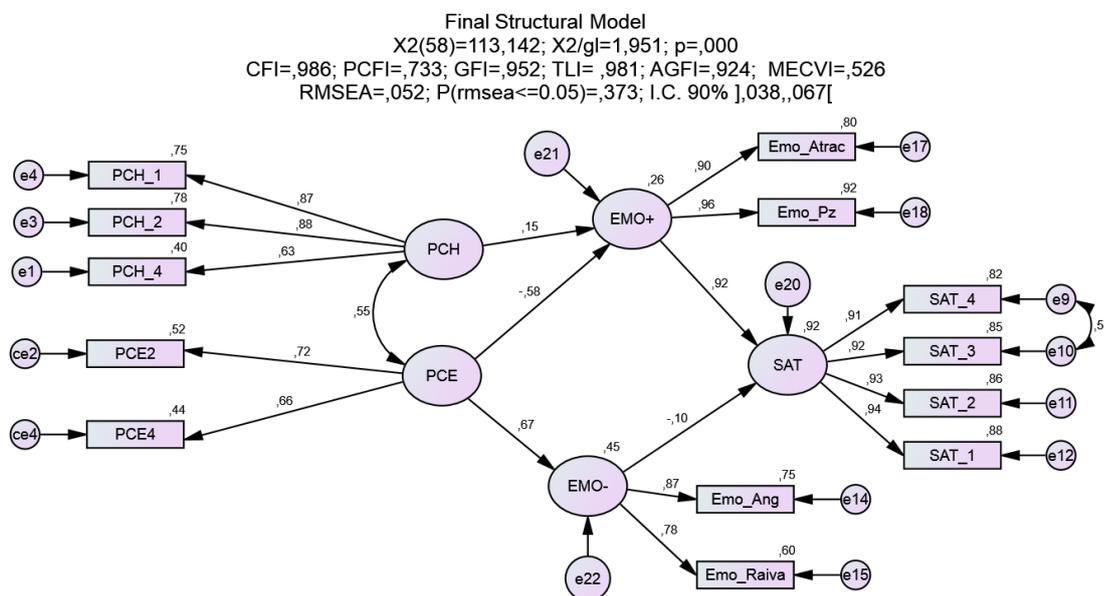


Figure 1 - Adjusted structural and measurement model.

Source: Research data based on the graphical output generated by the AMOS 22.0 software.

Figure 1 shows the measurement model, with factorial weights and individual item reliability, and structural coefficients for the sample. The constructs of Figure 1 presented composite reliability higher than 0.7, convergent validity with mean extracted variances (VEM)

above 0.5 and discriminant validity, considering that all latent variables have EMV higher than the square of the correlation of variables (Garver and Mentzer, 1999, Marôco, 2010). Figure 1 also discriminates the values referring to RMSEA, GFI, TLI, AGFI, χ^2 / gl , NFI, TLI, AIC and MECVI indices that qualify the adjustment of the model. The values were higher than the expected minimum values (Marôco, 2010) from 0.9 for TLI, 0.8 for GFI, AGFI. The value of RMSEA was adequate, below the acceptable maximum of 0.08, with statistical significance ($p_{close} > 0.05$) that the value is less than or equal to 0.05, in the same way as the chi square (χ^2) of freedom (gl) remained below 5 demonstrating the good quality of fit (HAIR et al., 2009).

The average perception of spatial crowding presented a value of 3.57. Human crowding imported a lower average (2.64). The sample also pointed to a higher average of positive emotions (5.43) when compared to negative emotions (2.90).

The satisfaction construct, averaging 3.61, is the result of hypothetical cause-and-effect relationships by statistical approximation and interpreted from the proposed structural equation model for the mediation of crowding perception by emotions (Kline, 2011). In order to analyze the influence paths of the models, to test the significance of the relations between the constructs, their direct and indirect effects, with full or partial mediation, the bootstrap methodology was used to parameterize AMOS to create 2000 samples, respecting the confidence interval of 95%.

Table 1 - Factorial weights and tests of direct and indirect effect by bootstrap

PCE → SAT	0,06	0,412	0,000***	0,001**	H1a	Accepted
PCH → SAT	0,062	0,155	0,045**	0,010**	H1b	Accepted
PCE → EMOn → SAT	-	-	-	-	H2a	Rejected
PCE → EMOp → SAT	-	-	-	-	H2b	Accepted
EMOn → SAT	-0,1	0,179	***	0,185	H2c	Rejected
EMOp → SAT	0,916**	0,001**	***	0,01**	H2d	Accepted
PCH → EMOn	-0,187	0,13	***	0,122	H3a	Accepted
PCH → EMOp	0,149**	0,042	***	0,046**		
PCE → EMOn	0,671**	0,001**	***	0,001**	H3b	Accepted
PCE → EMOp	-0,577**	0,001**	***	0,001**		

Source: research data.

*** $p < 0,001$ ** $p < 0,05$ for bootstrap with C.I.=95%

The influence among the variables is described in Table 1, which lists the estimated factor loads for the model. The factorial load of the PCE-> SAT ratio, although not statistically significant, as shown in Table 1, confirms the hypothesis H1a "The perception of spatial crowding influences consumer satisfaction", since the total and indirect effect are significant by the parametric bootstrap technique ($p < 0.05$). Thus, it is confirmed that the perception of spatial crowding influences satisfaction. It is worth mentioning that Machleit, Eroglu and Kellaris (1994) indicate that perception of crowding can be related indirectly to consumer satisfaction through mediation with other variables. In addition, the hypothesis H1b "The perception of human crowding influences consumer satisfaction" was also confirmed, considering the statistical significance of the mediation effect of constructs positive emotions and negative emotions.

In the tangent to the H2 hypotheses, the results indicated that negative emotions did not measure the effect of crowding perception on satisfaction, given the statistical non-significance of the EMOn-> SAT ratio, which presented a total and direct effect with values higher than 0,05 (0.185 and 0.179, respectively), which does not support the H2a hypothesis. "Negative emotions measure the effect of perceived crowding on satisfaction." In this scenario, the hypothesis H2c "Consumer satisfaction is negatively influenced by negative emotions" was also rejected, since, in light of the structural relations, it is not possible to consider the existence of negative emotions influence on consumer satisfaction.

The unexpected results of these hypotheses are attributed to the possibility that, although in a high human and spatial environment, the consumers of the stadium did not identify the high agglomeration as dysfunctional, that is, crowding may not have prevented them from enjoying the main product offered, the soccer match. This would negate possible consequences inherent in negative emotions.

Moreover, based on the concept of collective emotion proposed by Scheve and Ismer (2013), the positive emotions of other consumers that "infect" the atmosphere of the stadium with regard to cheerleading may have influenced individual negative emotions. In this way, by means of inference of the positive ones of the collectivity, the individual negative emotions, although they exist, could not have been considered by the consumer in the evaluation of the experience of consumption and, therefore, had not exerted any influence on the satisfaction nor as mediators of perception of crowding and satisfaction.

Thus, the mediation effect found in the ways of perceiving human and spatial crowding for consumer satisfaction are constructive results of positive emotions. Thus, the effect of positive emotions on satisfaction is strong, registering a factorial load of 0.916 ($p < 0.001$) and supporting the hypotheses H2b "Positive emotions measure the effect of perception of crowding on satisfaction" and H2d "A Satisfaction is positively influenced by positive emotions."

In relation to the PCH-> EMOn ratio, this is not statistically significant ($p = 0.122$), while the magnitude of the PCH-> EMOp ratio is 0.149 ($p = 0.42$), confirming the hypothesis H3a "The perception of human crowding triggers more positive emotions than negative emotions" and the studies by Kalisch and Klaphake (2007) and Whiting and Nakos (2008), which also indicate positive effects triggered by human agglomeration. Therefore, the confirmation of this hypothesis is in agreement with most of the crowding perception studies mentioned here, which consider the agglomerations.

In agreement with these studies, it was verified that the perception of spatial crowding negatively influences the positive emotions ($\lambda = -0.58$; $p < 0.05$) whereas, to the negative emotions, the perception of spatial crowding influences positively ($\lambda = 0.67$, $p < 0.05$), showing that the hypothesis H3b is supported. "The perception of spatial crowding causes more negative emotions than positive emotions".

However, the magnitude of the negative influence ($\lambda = -0.58$; $p < 0.05$) on the perception of spatial crowding on positive emotions does not affect the direct effect of these emotions on satisfaction ($\lambda = 0.92$, $p < 0.05$), it is inferred that, despite the lower absolute relation of human

crowding perception ($\lambda = -0.58$; $p < 0.05$), its positive impact on the mediator construct is more effective. The hypothesis H4 is confirmed. "The perception of human crowding influences more intensely the satisfaction than the perception of space crowding."

5 CONCLUSION

This research aimed to explore peculiarities of the agglomeration phenomenon in an entertainment services environment that attract several tourists when performed. In order to do so, it focused on analyzing crowding perception characteristics, relating it to emotions and consumer satisfaction in stadium environment during the World Cup period, one of the largest periodic sporting events that agglomerates tourists and locals in stadiums to watch to the championship.

The theoretical relevance of investigating consumer behavior of services lies in the peculiarities that this type of consumption holds. As far as the perception of crowding is concerned, this research is still little studied in a service atmosphere, this research contributes to its application in soccer stadium, continuing the measurement of the variables proposed for retail, exploring them in another place of consumption, according to several authors mentioned above. It is worth mentioning that no studies were found to relate crowding perception to emotions and consumer satisfaction in a stadium environment.

From a managerial perspective, understanding the crowding phenomenon, a continuously intensifying market reality, allows agglomeration-prone consumer sites to be restructured so that the possible effects of this phenomenon cannot trigger negative consumer emotions, especially the physical configuration of the place of consumption, as attested in this study.

Specifically about the application in soccer stadium, there are management implications inherent to the possibilities brought to the country after the World Cup. The host stadiums support other events of great relevance and the findings of this research reflect the continuous need for maintenance and improvement of the physical structure of these stadiums, since the greater the space crowding, regarding accessibility, comfort and electronic devices, the more the negative emotions provoked in the consumer.

It is known that, possibly, the effects of a crowded environment are more strongly, positively or negatively, in a real crowding situation and that, although the use of video is indispensable in the control of external variables. These may not be enough representative of the reactions of the consumer to the agglomeration in real environment of football stadium, which is configured as a limitation of this research. Therefore, it is suggested that studies be carried out in situ and, in the future, research aimed at comparing the perception of crowding measured in real stadium environment and through videos to attest the representativeness of this stimulus.

Finally, in view of the non-acceptance of some of the hypotheses and, above all, the need to fill the theoretical gaps still existing around the perception of crowding in service environments, more specifically services that attract tourist movement, it is also suggested, for future research, the reapplication of this model in other entertainment venues such as theme parks, museums and

theaters, where, possibly, against the findings of this research, human agglomeration would trigger negative emotions and dissatisfaction. There is still room for research that may evidence aspects that possibly approximate the results found here, positive emotions and satisfaction in the perception of crowding, such as seasonal musical events.

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