

The determinants of satisfaction in restoration: The role of the dimensions of justice, emotions and disconfirmation

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Abstract

In this article, we look at the history of satisfaction in restoration. Among these determinants, we also want to determine which ones are the most influential. After a clarification of the concepts of equity, emotions and satisfaction, we propose a research model. It is built on the assumption that in restoration, equity and emotions affect satisfaction. Data from a survey of 300 of 5 restaurants located in Antananarivo, Madagascar were processed under structural equation. The results partly confirm our hypotheses and, among other things, put and confirm the role of cognitive and affective elements in the formation of satisfaction. We conclude our article on the limits of the study and future research perspectives.

Keywords: equity, positive emotions, negative emotions, disconfirmation, satisfaction

Introduction

The notion of satisfaction has always been at the subject of marketing research, both in the business and in academia area. In the corporate, it means long term profit (Rychalski and Hudson, 2016) ^[42] because it is strongly linked to consumer post-purchase behaviors such as loyalty (Martínez-Tur *et al.* 2006) ^[28]. In the academic area, its importance is evidenced by the growing number of investigations around the subject for years (Oliver, 1980; Oliver and Swan, 1989; Teo and Lim, 2001; Olsen and Johnson, 2003; Martínez-Tur *et al.*, 2006; Rio-Lanza *et al.*, 2009) ^[32, 33, 35, 45, 36, 13]. While the disconfirmation of expectations paradigm has dominated research for many years, the evolution of research has seen the integration of both emotion and cognition into the design of consumer satisfaction (Phillips, 2002) ^[37]. Consequently, investigations have conceptualized emotion within the framework of disconfirmation (Phillips, 2002) ^[37] or even in the model based on equity (Del Rio-Lanza *et al.*, 2009) ^[13]. However, in the literature, two models: disconfirmation-emotion and equity-emotion are treated separately within the framework of their conceptions of satisfaction and no study has tried to integrate the two theories in a single model whereas the two concepts, although distinct, are considered complementary and both simultaneously influence satisfaction (Oliver and Swan, 1989) ^[33, 35]. The objective of this research is to combine disconfirmation, equity and emotion in a single model in studies of satisfaction. Moreover, investigations integrating both justice and emotion as the antecedent of satisfaction are considered relatively new and despite the contribution of the results obtained, much remains to be discovered. In addition to this, the majority of these studies have been carried out in the context of service recoveries (Del Rio-Lanza *et al.*, 2009) ^[13]. On this, it is necessary to make investigations in other contexts such as restoration. Theoretically, this article

allows us to make a contribution on the relative shortcomings highlighted in the current literature. An in-depth study of too few, if not non-existent, studies around a satisfaction model integrating the dimensions of justice, disconfirmation and emotion is necessary. From a methodological point of view, it is interesting to carry out investigations both in other contexts such as restoration and in other cultures to improve the validity of research around these models. This article is organized into five parts. After a review of the literature relating to satisfaction, emotion, equity and disconfirmation, we will present the conceptual research model and the resulting hypotheses. Then, we present the methodology and the results. Finally, we discuss the results of this research.

Literature review and determination of hypotheses

After an overview of the different definitions and models of the satisfaction, this section discusses the concept of emotions, equity and finally, the notion of disconfirmation.

Satisfaction

Satisfaction is presented as a main concept of marketing (Han, 2009) ^[16] and therefore has been the subject of many investigations for years (Oliver, 1980; Oliver and Swan, 1989; Olsen and Johnson, 2003; Martínez-Tur and al., 2006; Del Rio-Lanza *et al.*, 2009) ^[32, 33, 35, 36, 28, 13]. Despite the presence of literature on the subject, the authors have found no consensus definition. The divergence is as much about its apprehension in a time frame as about its nature. From a temporal point of view, some authors suggest that satisfaction refers to the most recent transaction (Maxham III and Netemeyer, 2002) ^[29] where it is defined as an evaluation or an experience in reaction to a particular transaction with a product, an episode or a service (Olsen & Johnson, 2003) ^[36]. Other authors define it as a cumulative evaluation of the consumer's experiences with the product or

service (Olsen and Johnson, 2003) ^[36] or an addition of all perceived satisfactions (Maxham III and Netemeyer, 2002) ^[29]. The other point of disagreement relates to the very nature of satisfaction. In research, the concept refers to cognition (Oliver, 1980) ^[32], thus, it is defined as judgment after an act of purchase. According to other models, it is equated with emotion in the same way as anger, fear or joy (Hegtvæd and A., 1990; Turner, 2007; Cahour and Lancry, 2011) ^[17, 46, 7]. From this perspective, it is a positive and pleasant emotion (Cahour and Lancry, 2011) ^[7]. Other authors in turn support the idea that the study of satisfaction has mainly focused on its cognitive aspect, however this model relates to a dual concept integrating both emotion and cognition (Yu *et al.* Dean, 2001) ^[49]. In addition, emotion is what distinguishes satisfaction from quality of service. In addition to this divergence from a temporal point of view and from the point of view of the nature of the concept, there is also a certain difference in the apprehension of satisfaction according to the sector of study. If in the context of student satisfaction, it is presented as a multidimensional concept, integrating elements such as: problems related to trainers, communication, technology, course management (Bolliger and Martindale, 2004) ^[5]; within the framework of consumer theory, many works define it as a one-dimensional concept (Oliver, 1980) ^[32]. Other than the conceptualization of the model from a unidimensional or multidimensional point of view, one of the divergences is also around its measurement (Lee *et al.*, 2009) ^[21]. While some researchers have a certain preference for a single-item scale (Cronin and Taylor, 1992) ^[11], some authors suggest the use of a multi-item scale (Lee *et al.*, 2009) ^[21]. The idea of a multi-item measurement scale is relatively accepted due to the complexity of the model and, moreover, to be able to obtain a certain stability in terms of the reliability of the scale in question (Lee *et al.*, 2009) ^[21]. Despite these differences, the idea that emerges from all these investigations is that satisfaction is an evaluative judgment after a consumption experience. The disconfirmation paradigm of expectations is arguably the best-known model of satisfaction theory. According to this cognitive model, the process of satisfaction occurs through several stages (Oliver & Swan, 1989) ^[33, 35]. First, consumers set a benchmark against their expectations of a product or service. Second, consumer experimentation reveals the level of performance of the product or service: performance beyond expectations results in positive disconfirmation and furthermore, performance below expectations results in negative disconfirmation. This judgment is then used for the assessment of satisfaction, a positive disconfirmation is associated with satisfaction and a negative disconfirmation is associated with dissatisfaction (Oliver and Swan, 1989) ^[33, 35]. Despite the importance of disconfirmation of expectations in the literature, some authors admit that the notion is more complex and therefore cannot be explained by the sole idea of a cognitive evaluation process (Churchill and Surprenant, 1982) ^[9]. This limit of the disconfirmation paradigm has opened up new horizons for research on the subject. Thus, authors have redefined the theory of satisfaction according to the principle of justice (Oliver, 1989; Martinez-Tur *et al.*, 2006) ^[33, 35, 28]. According to his studies, satisfaction results from a comparison between contribution and remuneration in the context of a transaction. It follows that when the compensation in question is equal to the contribution, satisfaction manifests

itself, and otherwise, there is dissatisfaction. In addition to justice theory, the link between satisfaction and emotion has also been the subject of much investigation (Oliver & Westbrook, 1993; Prayag *et al.*, 2013) ^[34, 40]. Thereupon, positive emotions positively influence satisfaction and negative emotions negatively impact satisfaction (Prayag *et al.*, 2013; Rychalski and Hudson, 2016) ^[40, 42].

Emotion

The person is considered the most emotional animal. Among other characteristics, emotion is presented as the one that makes humans unique (Turner, 2007) ^[46]. It turns out that no other topic has aroused more interest than emotion in sociology (Turner, 2007) ^[46]. In this case, the importance of the subject lies in the fact that not only do emotions play a fundamental role in survival (Richins, 1997) ^[41], but they also constitute the first system of motivation for the person (Izard, 1977) ^[18], and communicate a signal of intentions (Plutchik & Kellerman, 1989) ^[38]. In consumer theory, the affective is an important area for studying behavior (Richins, 1997; Lee *et al.*, 2008) ^[41, 22]. Even if there are interests around the subject, the current literature does not provide a consensual definition of emotion. This is undoubtedly the fact that besides the complexity of the phenomenon, it concerns not only the field of psychology and sociology, but also other disciplines. Thus, in the context of biology, the notion of emotion is presented as a change at the level of the human body (Turner, 2007) ^[46]. From a cognitive perspective, it is defined as a conscious feeling through a specific referent (Turner, 2007; Prayag *et al.*, 2013) ^[46, 40]. Following a cultural approach, it refers to words and labels that humans associate with particular physiological states of arousal (Turner, 2007) ^[46]. Even within the framework of consumer theory alone, there are at least more than two dozen definitions of emotion (Richins, 1997) ^[41]. Besides the definition of the model, the divergence is also situated within the framework of the dimensions which compose it. Some authors advance the idea of a two-dimensional model (Mano and Oliver, 1993) ^[27] composed of pleasures and excitations, while other authors advance three dimensions by integrating a dimension of domination or control (Lee *et al.*, 2008) ^[22]. In consumer satisfaction, research around emotion has focused on a categorization perspective (Oliver and Westbrook, 1993) ^[34]. However, along with definition or dimensions, the problem of measuring emotion happens to be a major concern in the psychology of emotion (Plutchik & Kellerman, 1989) ^[38]. If Ekman (1982) ^[14] puts forward six basic emotions (anger, disgust, fear, happiness, sadness and surprise), Plutchik and Kellerman (1980) ^[39] put forward eight elements including: fear, anger, joy, sadness, acceptance, disgust, expectation and surprise. From other perspectives, Izard (1977) ^[18] identified ten elements: anger, contempt, disgust, distress, fear, guilt, interest, joy, shame, surprise. In this research, emotion is categorized according to the ideas of Liljander and Strandvik (1997) ^[24].

Equity

In the context of social exchange, the notion of equity has always been associated with the theory of distributive justice. From this perspective, a transaction is described as fair when a person engaged in an exchange finds that their reward / contribution ratio is equal to the reward / contribution ratio of the other party (Oliver and Swan, 1989)

[33, 35]. Equity depends on how each party perceives the course of the trade. Furthermore, it induces an idea of comparison with a reference which can be an individual with whom it is in relation, or even a group of people, an organization or the individual himself in relation to his previous experiences (Xia *et al.*, 2004) [48]. The most significant limitation of the equity rule, from the perspective of distributive justice, is that it attaches importance only to the last stage of the distribution process (Leventhal, 1976) [23]. Thus, the equity judgment only takes into account the outcome or gains from the exchange, ignoring the process or course of the exchange. However, it would be equally interesting to integrate the notion of procedural justice. In addition to judging the relationship between contribution and retribution, equity would also be assessed by judging whether retribution or the process mobilized for the acquisition of retribution is reasonable, acceptable or just. Thus, procedural justice relates to the equity of the way in which rewards are distributed (Hegtvedt, 1990) [17]. The importance of the resource allocation procedure is that, due to its stability, it gives information about future results (Brockner and Wiesenfeld, 1996) [6]. As a result, procedures perceived as fair lead to more optimism leading to a favorable outcome. Leventhal (1976) [23] puts forward the idea that the evaluation of the procedural components of justice influences the perception of the distribution of the result. If the procedures are seen to be fair, so would the outcome, even if it were unfavorable. Otherwise, when the individual does not trust the process, he also loses confidence in the decisions. Interactional justice is presented as the latest and most recent of the components of justice. It was induced following a certain divergence on the conceptualization of procedural justice. In fact, initially procedural justice is presented as a multidimensional concept integrating both structural and interactional elements (Cropanzano and Greenberg, 1997) [12]. Subsequently, authors have put forward the idea that interactional factors are entirely independent of procedural justice and presents itself as an integral dimension of justice (Bies and Moag, 1986) [3]. While it is widely accepted that procedural justice refers to the way people are treated during a process (Blodgett *et al.*, 1997) [4], there is some divergence in the elements that make it up. While some authors advance ideas such as courtesy, sensitivity, treatment and the effort made to address consumers' needs (Del Rio-Lanza *et al.*, 2009) [13], others advocate more or less distant ideas in highlighting components such as: courtesy, politeness or the level of language used (Chebat and Slusarczyk, 2005) [8] or friendliness, sensitivity, interest, honesty, frankness and preoccupation or effort.

Disconfirmation

The disconfirmation paradigm of expectations has always been the dominant model of satisfaction theory. From this perspective, satisfaction emerges from a multi-step process (Oliver & Swan, 1989; Phillips, 2002) [33, 35, 37]. First, consumers develop a benchmark, to assess the performance of the product or service. During the consumer experience, there is a comparison between the perceived performance and the benchmark. Therefore, if the perceived performance exceeds the comparison standard, there is a positive disconfirmation, otherwise, there is a negative disconfirmation. The degree of satisfaction or dissatisfaction that results is a function of the positive or negative

disconfirmation (Oliver and Swan, 1989) [33, 35]. Positive disconfirmation is associated with satisfaction, and negative disconfirmation is associated with dissatisfaction (Oliver, 1980) [32]. However, previous research points to a certain limit to this idea (Sundar and Noseworthy, 2016) [44], in certain circumstances, the disconfirmation would not follow such a liberating path, especially in the case of negative disconfirmation. Consumers treat the disconfirmation according to the level of the expectation violation. In this context, there are two kinds of violation: a basic violation that affects the very purpose of the product and device violations that only affect the elements that complement functionality such as packaging, colors (Sundar and Noseworthy, 2016) [44]. It shows that when a negative disconfirmation is related not to the object, but to the peripherals, it can lead to satisfaction (Sundar & Noseworthy, 2016) [44].

Research modeling and hypothesis formulation

Several studies have highlighted the existence of a link between justice and satisfaction (Oliver and Swan, 1989; Del Rio-Lanza *et al.*, 2009; Martinez-Tur *et al.*, 2006) [33, 35, 13, 28]. Consumers assess what they think is right by comparing the perception of their experiences to a benchmark they believe to be (Teo and Lim, 2001) [45]. In the context of this study, references relate to the principles of price equity (or distributive justice), process equity (or procedural justice) and finally, interactional justice. From this perspective, hypotheses have been formulated as follows.

H1a: Distributive justice positively influences satisfaction.

H1b: Procedural justice positively influences satisfaction.

H1c: Interactional justice positively influences satisfaction.

The relationship between dimensions of justice and emotions has been the subject of a number of research studies (Chebat and Slusarczyk, 2005; Schoefer and Ennew, 2005) [8, 43]. Although the results put forward the idea of a relationship between perceived justice and emotion (Chebat and Slusarczyk, 2005) [8], there is a certain inconsistency of the results obtained in relation to the weights of the three dimensions on the emotion. Regarding distributive justice, the link between this dimension and emotion is confirmed (Chebat and Slusarczyk, 2005) [8]. If the pay is lower than expected, consumers show anger and aggression. Conversely, if it exceeds expectations, there is a feeling of guilt (Weiss *et al.*, 1999) [47]. Procedural justice impacts emotions (Del Rio-Lanza *et al.*, 2009) [13]. Guilt arises if the procedure is biased in favor of the individual in question (Weiss *et al.*, 1999) [47]. In the context of job satisfaction, it turns out that this dimension is the most important predictor of satisfaction (Lind and Tyler, 1988) [25]. Finally, concerning interactional justice, there is a certain inconsistency in the results, on the one hand, research supports the idea of a link between interactional justice and emotion (Chebat and Slusarczyk, 2005) [8] while on the other hand, some authors admit that this dimension has no impact on emotion (Del Rio-Lanza *et al.*, 2009) [13]. Following these ideas:

H2a: Distributive justice influences positive emotions.

H2b: Distributive justice influences negative emotions.

H2c: Procedural justice influences positive emotions.

H2d: Procedural justice influences negative emotions.

H2e: Interactional justice influences positive emotions.

H2f: Interactional justice influences negative emotions.

Emotion appears to be an important element in predicting consumer behavior (Lee *et al.*, 2008; Prayag *et al.*, 2013; Rychalski and Hudson, 2016) [22, 40, 42]. According to previous research, emotion appears to be an important element in evaluating an experience and in explaining a reaction such as satisfaction (Prayag *et al.*, 2013) [40]. Thus, positive emotions have a positive impact on satisfaction and conversely, negative emotions have a negative impact on the latter (Phillips, 2002; Prayag *et al.*, 2013) [37, 40]. From this perspective:

H3a: The positive emotions felt during the consumption

experience influence satisfaction.

H3b: Negative emotions felt during the consumption experience influence satisfaction

The disconfirmation model is presented as the best-known model in satisfaction theory and has been the subject of many variations over the years (Oliver and Swan, 1989) [35, 33]. Most of his research has come to the conclusion that disconfirmation impacts satisfaction (Oliver, 1980; Oliver & Swan, 1989) [32, 33, 35]. Then:

H4: Disconfirmation positively influences satisfaction.

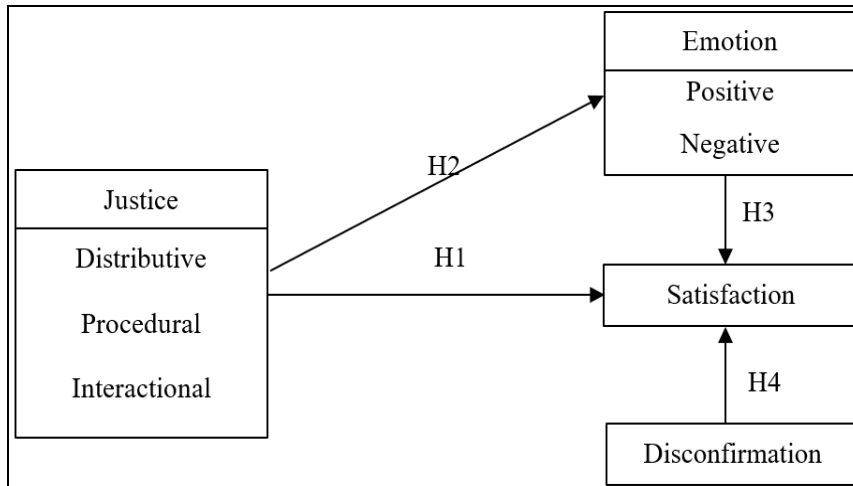


Fig 1: The global research model

Methodology and data

This part first proposes the definition of the measuring instruments for each of the models. The sampling and data collection will be presented in a second step, as well as the adopted analysis method.

Measures

All of the measurement scales we have used are all taken from the literature. We have adapted them according to the

context of the study. The items for distributive justice, positive and negative emotions are those initiated by Namkung and Jang (2010) [30]. The measures of disconfirmation, procedural justice and interactional justice are those proposed by Martínez-Tur *et al.* (2006) [28]. Finally, the satisfaction measurement is inspired by Han and Ryu (2009) [16]. Table 1 illustrates the different definitions for each model.

Table 1: Definition of the dimensions used

Model	Definition	References
Distributive justice	Consumer perception if this is the right price.	(Namkung et Jang 2010) [30]
Disconfirmation	Consumer perception of issues, benefits and the overall shopping experience.	(Martínez-Tur <i>et al.</i> 2006)
Positive emotions	Refers to joy, tranquility and refreshment.	(Namkung et Jang 2010) [30]
Negative emotions	Refers to anger, distress and disgust.	(Namkung et Jang 2010) [30]
Procedural justice	Refers to waiting time and accessibility of employees	(Martínez-Tur <i>et al.</i> 2006)
Interactional justice	The extent to which employees have shown caring and individual attention to customers.	Martínez-Tur <i>et al.</i> 200
Satisfaction	Global judgment process of the perceived gap between past expectations and actual consumption.	(Han et Ryu 2009) [16]

To ensure the validity of the content, the questionnaire was refined by a rigorous pre-test, initiated with the aim of verifying the clarity of the questions. During the pre-test, 10 individuals were invited to comment on the questions and their formulations. The feedback from these 10 people formed the basis for the review of our measurement scales.

Sampling and data collection

The research was conducted among consumers of five restaurants of various specialties. To ensure the good reliability of the structural equation model, the number of responses must be 5 to 10 times greater than the number of

items (Janssens *et al.*, 2008) [19]. In this research, the largest scale has three items. The minimum number required to validate the scale is at least 15 responses that is to say 5 times the 3 items. Loehlin (2004) [26], for his part, puts forward the idea of a sample of 100 to 200 individuals, he concludes that the model behaves correctly if the size of the sample respects this condition. Given these methodological recommendations, the difficulties related to the survey, the availability of individuals to question, the length of our questionnaire, we conducted a face-to-face survey of 300 individuals.

Data analysis

The data obtained are processed with Smart PLS 3 software. First, the measurement scale was tested, then a structural equation modeling made it possible to test the advanced hypotheses. These analyzes yielded the following results.

Results

After the presentation of the convergent and discriminant

validity test of measurement scales, this section will discuss the result following the test of the structural model.

Measurement scale test

Before testing the structural model, the reliability, convergent and discriminant validity of the models should be established.

Table 2: Presentation of measurement scales

Model / measure	λ	Reliability	AVE
Disconfirmation			
During your lunch / dinner at this restaurant, you encountered fewer "problems" than you expected	0.849	0.843	0.642
You saw more benefits than you expected	0.724		
Restaurant quality was better than you expected	0.825		
Positive emotions			
Peacefulness	0.801	0.829	0.709
Refreshment	0.881		
Negative emotions			
Anger (anger)	0.898	0.908	0.832
Disgust	0.926		
Distributive justice			
The food you ordered was reasonably priced	0.916	0.909	0.834
The cost seemed appropriate in relation to the service	0.911		
Interactional Justice			
Employees at this restaurant understand each customer's needs	0.851	0.876	0.702
Employees of this restaurant provide personal attention	0.788		
The employees of this restaurant are very involved in the care of customers	0.873		
Procedural justice			
I waited a long time for someone to take care of me (reverse item).	0.704	0.869	0.692
I felt frustrated because the employees did not respond to my service requests (item reversed).	0.919		
I had to make efforts to attract the attention of the employees (reverse item).	0.858		
Satisfaction			
Overall you are happy with this restaurant	0.879	0.866	0.764
You had a good time in this restaurant	0.869		

The reliability test gave results greater than 0.7 (between 0.829 and 0.909), an acceptable threshold according to Nunnally and Bernstein (1994) [31], which confirms the reliability of the measurement scales used (Fornell and Larcker, 1981) [15]. Regarding the validity test, Bagozzi and Yi (1988) suggest that convergent validity is ensured by λ greater than 0.7. Table 2 shows that all λ are greater than their recommendations. In addition, the extracted mean variances (AVE) are greater than 0.5, which makes it possible to establish the convergent validity of the models

(Fornell and Larcker, 1981) [15]. We used the square root of the AVEs to verify discriminant validity (Fornell and Larcker, 1981) [15], (the values in bold in the diagonal of the correlation matrix of the latent variables). From Table 3, these values are greater than those below the diagonal. This means that the relationships between the latent variables are weaker than those between the model and their manifest variables. Consequently, the discriminant validity of our models is verified.

Table 3: Correlation between the different models

	1	2	3	4	5	6	7
Disconfirmation	0.801						
Negative emotion	-0.008	0.912					
Positive emotion	0.242	-0.257	0.842				
Distributive justice	0.397	-0.113	0.268	0.913			
Interactional justice	0.333	-0.391	0.280	0.353	0.838		
Procedural justice	0.457	-0.446	0.377	0.237	0.639	0.832	
Satisfaction	0.533	-0.243	0.360	0.330	0.494	0.590	0.874

Structural model test

To evaluate the structural model, the coefficient of determination (R2) of each dependent variable, the structural coefficients (β) and the level of significance (t-

value) were examined. The values of R2 are above the recommended threshold 0.10 (between 0.176 to 0.470) (Falk and Miller, 1992).

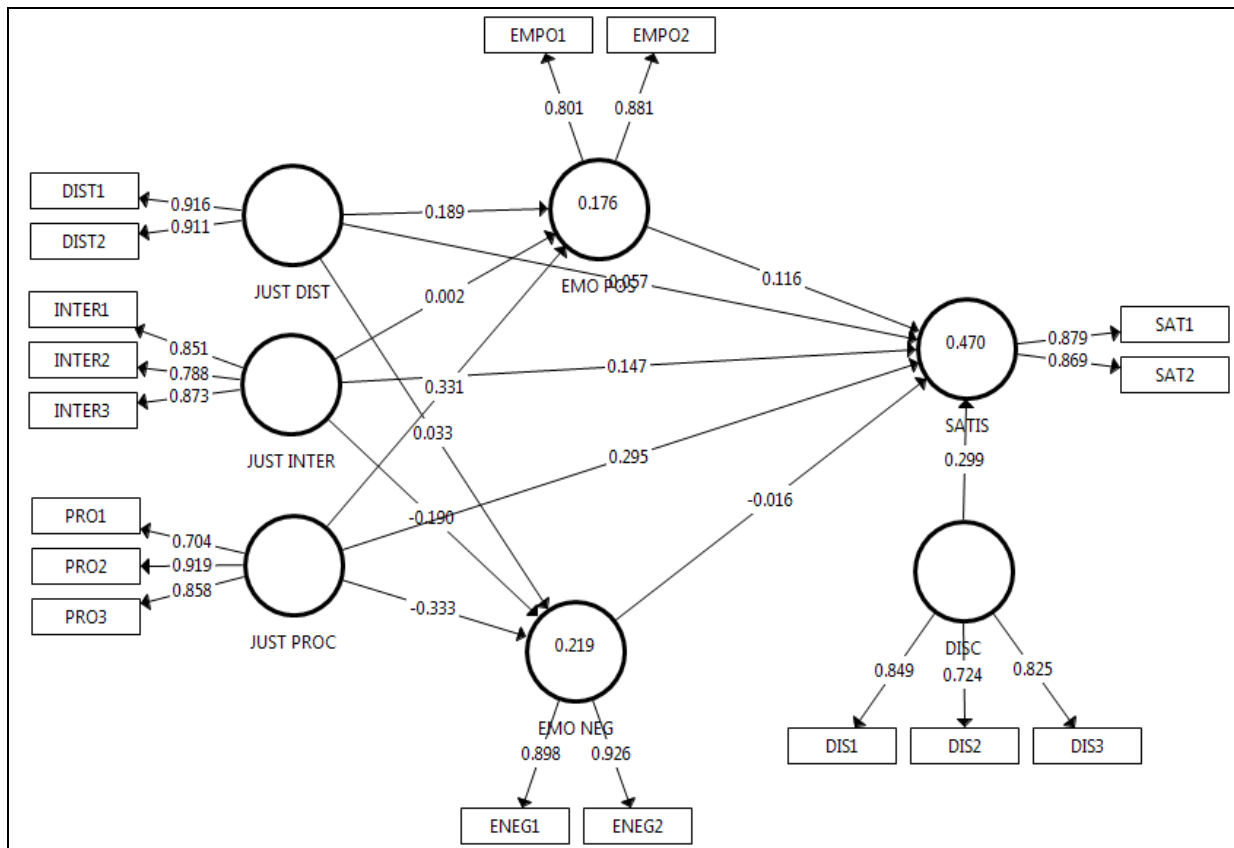


Fig 2: Structural model

Table 4: Result of causal links

Link	Hypothesis	Structural Coef	t-value	p-value	Results
Disconfirmation -> Satisfaction	H4	0.299	4.547	0.000	Confirmed
Emotions (-) -> Satisfaction	H3b	-0.016	0.226	0.821	Not confirmed
Emotions (+) -> satisfaction	H3a	0.116	2.213	0.027	Confirmed
Just distributive -> Emotions (-)	H2b	0.033	0.567	0.571	Not confirmed
Just distributive -> Emotions (+)	H2a	0.189	3.318	0.001	Confirmed
Just distributive -> Satisfaction	H1a	0.057	1.108	0.268	Not confirmed
Just interactional -> Emotions (-)	H2f	-0.190	2.296	0.022	Confirmed
Just interactional -> Emotions (+)	H2e	0.002	0.032	0.975	Not confirmed
Just interactional -> Satisfaction	H1c	0.147	2.124	0.034	Confirmed
Procedural justice -> Emotions (-)	H2d	-0.333	4.595	0.000	Confirmed
Procedural justice -> Emotions (+)	H2c	0.331	4.854	0.000	Confirmed
Procedural justice -> Satisfaction	H1b	0.295	3.830	0.000	Confirmed

The objective of this part is to examine the causal relationships between, the dimensions of justice, emotions, disconfirmation and satisfaction. The results show that interactional justice and procedural justice positively impact satisfaction ($\beta = 0.147, \rho < 0.05$; $\beta = 0.295, \rho < 0.05$), therefore, H1c, and H1c are confirmed. However, distributive justice does not impact satisfaction. Regarding the relationship between the dimensions of justice and emotions, on the one hand, distributive justice and procedural justice impact positive emotions ($\beta = 0.189, \rho < 0.05$; $\beta = 0.331, \rho < 0.05$); on the other hand, interactional justice and procedural justice impact negative emotions ($\beta = 0.190, \rho < 0.05$; $\beta = 0.333, \rho < 0.05$). As a result, H2a, H2c, H2d and H2f are confirmed. The same is true for the relationship between negative emotions and satisfaction ($\beta = 0.116, \rho < 0.05$), which confirms H3a. Otherwise, negative emotions do not impact satisfaction. Lastly, the disconfirmation impacts on satisfaction ($\beta = 0.299, \rho < 0.05$), therefore, H4 is confirmed.

Discussions

This research aims to test a satisfaction model integrating the dimensions of justice, emotions and disconfirmation. First, regarding the link between distributive justice and satisfaction, the results confirm the conclusions of other investigations suggesting that there is no relationship between the two models (Chebat and Slusarczyk, 2005) [8]. However, the place of distributive justice in the formation of satisfaction gives rise to debate. While some works have emphasized the importance of the model in the formation of satisfaction (Oliver and Swan, 1989) [33, 35], others have advanced the idea that distributive justice does not influence satisfaction in any way (Chebat and Slusarczyk, 2005) [8]. Our studies have provided empirical support for the idea that there is no link between this model and satisfaction. Regarding the link between distributive justice and emotions, while this dimension positively impacts positive emotions, it does not influence negative emotions. These results are not identical to those found by other authors

(Namkung and Jang, 2010) ^[30] indicating the existence of a link between this dimension and the two components of emotion. Second, regarding interactional justice, a good deal of research supports the idea of a close link between model and satisfaction (Blodgett *et al.*, 1997; Chebat and Slusarczyk, 2005) ^[4, 8]. According to some authors, it even happens to be the only dimension that really impacts satisfaction (Chebat and Slusarczyk, 2005) ^[8]. Our results, without asserting that it is the only determinant of satisfaction, support the idea of a relationship between the two models. Regarding its link with emotions, while the model influences negative emotions, it has no impact on positive emotions. Third, regarding the relationship between procedural justice and satisfaction, our results suggest a positive link between the two concepts. Like distributive justice, the place of procedural justice is not clear in the formation of satisfaction. On the one hand, some authors advance the idea of a strong relationship between the two constructs (Del Rio-Lanza *et al.*, 2009) ^[13], on the other hand, other researchers conclude that this dimension has no effect on satisfaction (Maxham III and Netemeyer, 2002; Chebat and Slusarczyk, 2005) ^[29, 8]. Our research results have supported the idea of procedural justice as the antecedent of satisfaction. In addition, this dimension has an impact on both positive and negative emotions. Besides the idea of an unstable relationship between the dimensions of justice and satisfaction, the impact of these dimensions on emotions shows also some divergence. By the way, according to our results, there is only procedural justice that impacts both positive and negative emotions. While distributive justice only impacts positive emotions, interactional justice only impacts negative emotions. However, according to Chebat and Slusarczyk (2005) ^[8], these three dimensions impact both positive and negative emotions. According to yet other perspectives, distributive justice impacts on positive and negative emotions, interactional justice only impacts positive emotions unlike procedural justice which only impacts negative emotions (Namkung & Jang, 2010) ^[30]. Moreover, the importance of interactional justice on negative emotions is confirmed (Namkung & Jang, 2010) ^[30]. This instability of the relationship between dimensions of justice and emotions can be explained by the fact that by their complex nature, emotions are difficult to grasp. There may be camouflaged or simulated emotions, they can be multiple at the same time and ambivalent (Cahour and Lancry, 2011) ^[7]. Our studies have confirmed the idea that emotions are produced through an individual's cognitive assessment of the environment (Lazarus, 1991). In this case, like the investigations made within the framework of the claim for services (Schoefer and Ennew, 2005) ^[43], the dimensions of justice allow this evaluation, which subsequently explains the formation of emotions. Fourth, regarding the link between emotions and satisfaction, while positive emotions impact satisfaction, negative emotions have no influence on the latter. If initially, these results are identical to those found by Lee *et al.* (2008) ^[22], they differ from those found by other researchers (Liljander and Strandvik, 1997) ^[24] who state such a significant influence of positive and negative emotions on satisfaction. While it has been confirmed that emotions guide judgments and evaluations (Cahour and Lancry, 2011) ^[7], its place is not stable in the formation of satisfaction. On this, contrary to our work which emphasizes the importance of positive emotions, other research leads to

a more important relation between satisfaction and negative emotions. (Liljander and Strandvik, 1997) ^[24]. Finally, the results of our research support the important place of disconfirmation in the formation of satisfaction. These results support the views of Oliver and Swan (1989) ^[33, 35] that although being a process of comparison like fairness, it is necessary to distinguish the two processes. Moreover, it is just as interesting to study them in a single model for their complementarities. In our research, disconfirmation is the element that most impacts satisfaction, followed by procedural justice, interactional justice, and positive emotions. Although our results confirm the idea of a cognitive perspective through the disconfirmation of expectations, it is confirmed that a theory of consumers in a purely rational framework omitting any emotional idea does not find its full relevance. Our results empirically support the complementarity of cognitive and emotional elements in the formation of satisfaction.

Conclusions

These findings have several implications for managers working in the restaurant business. Firstly, our studies will help managers better understand consumer satisfaction and secondly, to understand what type of justice impacts on emotions and what type of emotions impacts on satisfaction. This information will make it possible to put in place strategies to influence the perception of justice, to create positive emotions to better satisfy customers. First, managers need to be aware of the technical, time, material and financial means of treating clients adequately in functional and interpersonal terms. Specific training and remuneration policies, as well as job descriptions, could help provide excellent service from a procedural and interactional justice perspective. In addition, restaurateurs must be very attentive to the implementation of policies relating to interactional equity by training the waiters to exhibit the appropriate traits, such as politeness, courtesy, impartiality. Because of the hedonic nature of restaurants, it is obvious that emotions play an important role in the evaluation of services. In addition, the literature emphasizes the importance for employees to express socially desirable emotions during service meetings. According to the theory of emotional contagion, the expression of positive emotions by service personnel facilitates a corresponding emotional state in clients. Therefore, restaurant managers must create an environment that stimulates positive emotions. It is recommended to improve interactions between clients and provider, which would impact on positive emotions. It is therefore important to recruit contact staff with the appropriate social and interpersonal skills to work in a restaurant. In addition, the use of sensory marketing will be sought through, the music, the color of the room or the smells diffused in the room, or the general atmosphere of the restaurant. These positive emotions will help customers to positively assess the service offered. In addition, staff play a key role in satisfaction. Restaurant managers should keep in mind that dissatisfied staff contributes in a limited way to customer satisfaction. Consequently, in order to satisfy staff upstream, managers must give them the opportunity to develop personally and professionally, to be able to organize their work themselves and the right to speak about decisions that concern them. In addition, they must help employees balance family and work, improve the physical working conditions in restaurants and award

rewards in a fair and trust-based manner. In addition to the managerial implications, our investigations present several implications for future research, some of which are related to the limitations of this study. First, further investigation is needed to study more complex models. As part of our research, we only focused on the direct effects of the dimensions of justice on satisfaction. However, the interrelationships between these dimensions, as well as the indirect antecedents of satisfaction, could be analyzed under a modeling by structural equations. Second, one of the limitations of the research is also the measurement of emotion. In fact, the information was collected through questionnaires. Although a good deal of research uses the same procedure to measure the concept, its relevance is puzzling. In addition, emotion is a phenomenon that is complex to grasp and can be camouflaged or simulated (Cahour and Lancry, 2011) [7]. Besides that, our conception of satisfaction is purely cognitive, it would be just as interesting to investigate the emotional component of the construct. Third, a generalization of our results is excluded, as the survey focused on a few restaurants in a specified geographic area. Had the survey spread to other locations and countries, the results may be different.

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