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Qualitative Comparative Analysis, Crisp and Fuzzy Set, in Business and Management

Successful loyalty in e-complaints:
FsQCA and structural equation modeling
analyses

Dr. Alberto Urueña and Dr. Antonio Hidalgo
Universidad Politécnica de Madrid (Spain)



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Introduction

- An increasing number of consumers shift their buying activities from physical stores to retail websites. The reasons for this change are lower prices, time savings and a wider selection of products and services available on websites (Brunner et al., 2014).
- At the end of 2014, more than 3 billion people used Internet. In Europe 565 million people already use the Internet (79% of the population), and 47% make online purchases (Ecommerce Europe, 2014).
- Despite efforts by B2C e-commerce firms to offer high-quality services, providing a failure-free service proves almost impossible.
- Depending on how firms handle service recovery, results may vary massively: from losing an angry customer to retaining a satisfied who may still be willing to purchase again in the future.

Research questions

- (i) What factors should firms apply to ensure customer loyalty following a complaint? The research focuses on the following factors: distributive, procedural, and interactional justice, positive and negative emotions, satisfaction with service recovery, and trust.
- (ii) Does the combination of these factors should be study, in a better approach, using fuzzy-set qualitative comparative analysis (fsQCA)?



Theoretical review (I)

Justice as an antecedent of emotions, satisfaction with service recovery, trust, and loyalty

- Adams' theory of perceived justice is a highly effective tool to study individuals' reactions when engaging in complaint behavior (Río-Lanza et al., 2009). According to this theory, a person first perceives what a work situation provides in relation to what he contributes.
- Chebat and Slusarczyk (2005) report that all three dimensions of perceived justice have significant effects on negative emotions, and that interactional justice and distributive justice affect positive emotions.
- Satisfaction with service recovery (SSR) is the feeling of affection toward a company resulting from the handling of an interaction complaint (Davidow, 2003). A considerable number of studies deal with justice and satisfaction with service recovery (Maxham & Netemeyer, 2002; Schoefer & Ennew, 2005; Karatepe, 2006).
- Empirical studies show that interactional justice contributes to satisfaction after a complaint (McCollough et al., 2000).

Theoretical review (II)

- The majority of dissatisfied customers do not complain, but those who do expect a just response from the organization. Not receiving such a response, or receiving an inadequate response, causes the customer to lose trust in the organization (DeWitt et al., 2008). Trust is essential to satisfying e-commerce customers (Ratnasingham, 1998).
- Loyalty implies that the customer abstains from changing company, even if he must pay more for the service (Shankar et al., 2003). Numerous authors study the effect of justice in customer retention (Chebat & Slusarczyk, 2005; Wang et al., 2011).

Emotions as antecedents of satisfaction with service recovery, trust, and loyalty

- Researchers explore the influence of some emotions on trust in service recovery contexts (Kim et al., 2004). Highly negative emotions (e.g., anger) can damage trust.
- Findings show that emotions can cause deeper, more stable levels of trust than those that stem purely from rational sources (Williams, 2001).
- Affect control theory (ACT) addresses the influence of emotions on loyalty. When customers experience inadequate service recovery, they express their emotions and act to regain their own identity (Chebat & Slusarczyk, 2005).



Theoretical review (III)

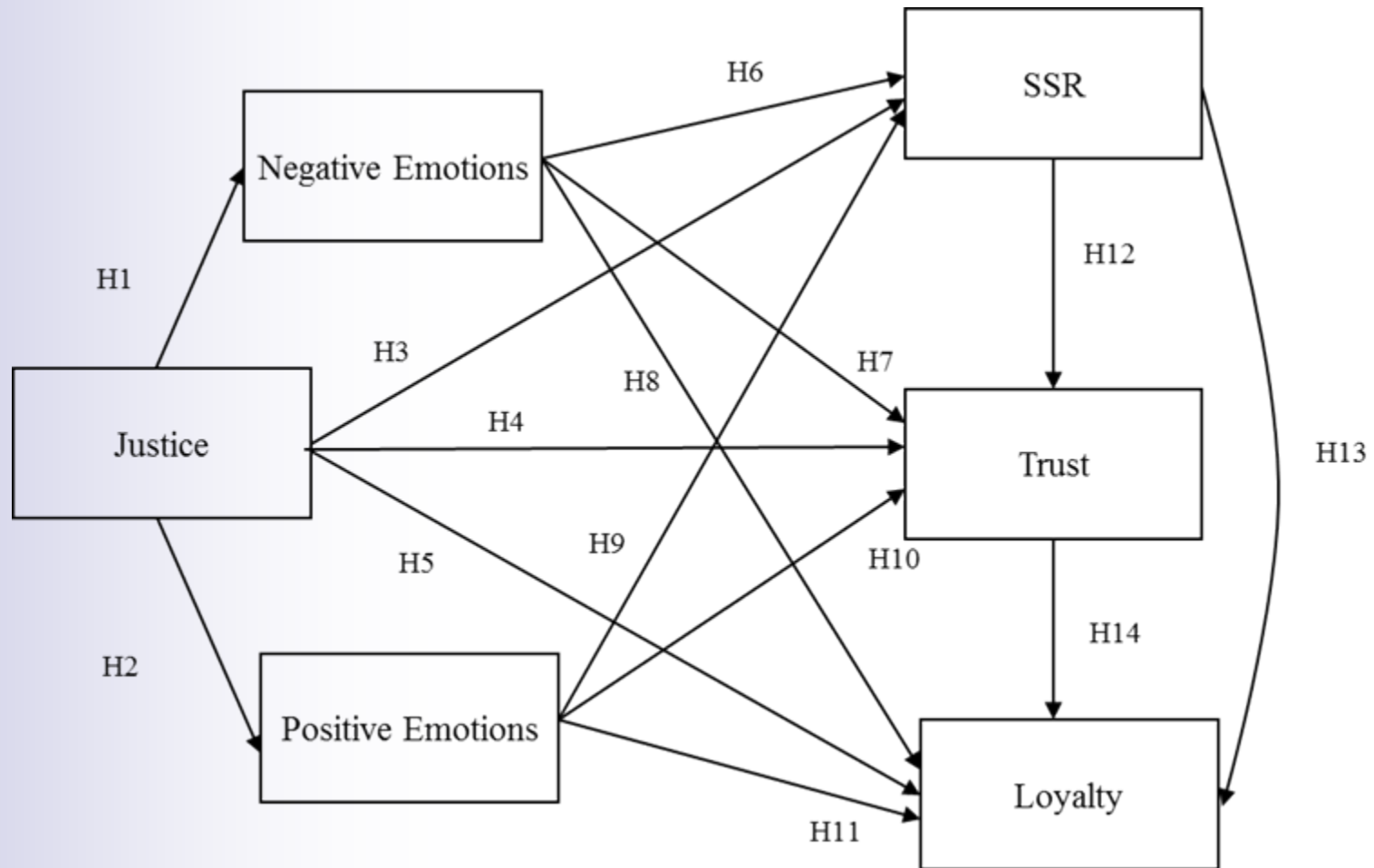
Satisfaction with service recovery as an antecedent of trust and loyalty

- When customers receive unsatisfactory responses to complaints, they lose trust in their service provider (DeWitt et al., 2008).
- The literature reports links between customers' loyalty and their levels of satisfaction. Andreassen (2001) indicates that if the customer feels satisfied with service recovery, he or she will be more loyal as a customer.

Trust as an antecedent of loyalty

- Trust largely determines the establishment and maintenance of relationships between customers and providers and plays a fundamental role in developing loyalty in online environments (Kim et al., 2004).

The model



Sample and methodology

- The sample designs for the database is a random proportional stratification conducted by population size where the household is located, social class and number of persons per household and has a pattern similar to that reported in other reports of B2C e-commerce in Spain.
- From the initial sample of 5000 Internet users, 59% declared that they had made a purchase online in the last year.
- The response rate of e-shoppers who lodged complaints about problems with a purchase is 6.07%, a normal figure for service recovery studies (Gustafsson, 2009).
- The final sample consists of 303 respondents who issued at least one complaint after a B2C transaction in the last year, and experienced service recovery actions from vendors following their complaint.
- Interviewees also gave the main reason for their complaint. The main reasons are delays in delivery (41.6%), defective products (38.9%), and receipt of the wrong product (29.4%).
- Two analytical approaches: classical SEM analysis and fsQCA.

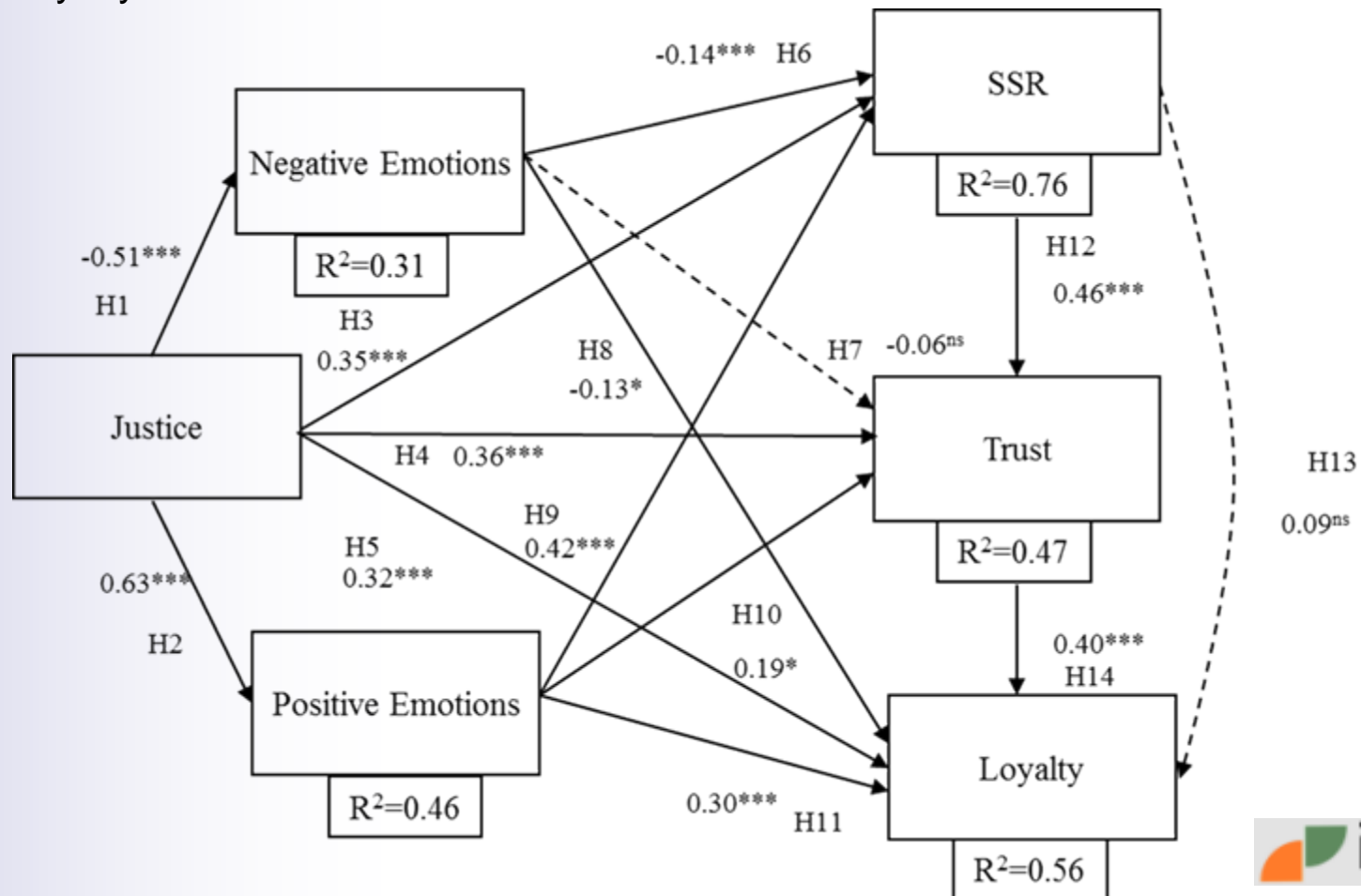
Reliability and validity of the scales

| | Composite reliability | Cronbach's Alpha | AVE | Mean (STD) | (1) | (2) | (3) | (4) | (5) | (6) |
|-----------------------|-----------------------|------------------|------|-------------|-------------|-------------|-------------|-------------|-----|-------------|
| Positive_Emotions (1) | 0.96 | 0.96 | 0.89 | 3.64 (1.92) | 0.93 | | | | | |
| Negative_Emotions (2) | 0.97 | 0.95 | 0.91 | 3.97 (2.05) | -0.6 | 0.95 | | | | |
| SSR (3) | 0.98 | 0.97 | 0.89 | 4.05 (1.94) | 0.79 | -0.63 | 0.94 | | | |
| Loyalty (4) | 0.92 | 0.87 | 0.8 | 4.07 (1.74) | 0.62 | -0.5 | 0.68 | 0.89 | | |
| Justice (5) | - | - | - | 4.02 (1.91) | 0.68 | -0.56 | 0.8 | 0.61 | - | |
| Trust (6) | 0.96 | 0.91 | 0.92 | 4.39 (1.6) | 0.6 | -0.47 | 0.65 | 0.64 | 0.6 | 0.96 |

- ✓ The scales are adapted from previous studies. All items use seven-point Likert-type scales.
- ✓ Following Chiu et al. (2010), justice is a formative indicator, comprising distributive justice, procedural justice, and interactional justice. Variance inflation factors (VIF) are 4.7 (procedural justice), 3.7 (distributive justice), and 3.6 (interactional justice), all below the limit of 5 (Hair et al., 2010).
- ✓ The values for both Cronbach's alpha and standardized reliability alpha were high in both cases, showing the survey's internal consistency and reliability.

Results of the model - SEM

- ✓ All the paths – except negative emotions-trust (H7) and satisfaction with service recovery-loyalty (H13) – were significant.
- ✓ The R^2 of loyalty is above 50%.



Results of the model - FsQCA

| Group | Path no. | Causal conditions | | | | | | Raw coverage | Unique Coverage | Consistency |
|------------|----------|-------------------|------------|---------------|----------|----------|-----------|--------------|-----------------|-------------|
| | | Distributive | Procedural | Interactional | Positive | Negative | | | | |
| | | justice | justice | justice | emotions | Emotions | SSR Trust | | | |
| All sample | 1 | | ● | ● | ○ | ○ | ● | 0.435985 | 0.028042 | 0.934457 |
| | 2 | | ● | ● | ● | ○ | ● | 0.687984 | 0.024489 | 0.924073 |
| | 3 | ● | ● | | ● | ○ | ● ● | 0.639577 | 0.003743 | 0.944444 |

solution coverage: 0.890940; solution consistency: 0.818595; consistency cutoff: 0.826183

- ✓ Solution 1 shows that high loyalty results from high procedural and interactional justice, low (positive and negative) emotions, and high trust.
- ✓ Solution 2 indicates that high procedural and interactional justice, high positive emotion and low negative emotion, and high satisfaction with service recovery lead to highly loyal consumer behavior. Solution 2 explains the most cases (raw coverage = 0.68).
- ✓ Solution 3 shows that the combination of high distributive and procedural justice, high positive emotions during the complaint process, low negative emotions, high satisfaction with service recovery, and high trust result in loyalty.
- ✓ The three solutions contain the conditions of high procedural justice and low negative emotions, which implies that these conditions are necessary to achieve high customer loyalty.



Conclusions

- ✓ This research pioneers the study of the influence of cognitive and emotional factors using fsQCA in a service recovery context.
- ✓ From a methodological perspective, this research demonstrates the usefulness of combining traditional techniques (SEM and fsQCA). SEM techniques let researchers observe the strength of relationships between variables in the model, whereas fsQCA yields configurations between variables that lead to a certain outcome.
- ✓ Procedural justice and interactional justice are key antecedents to loyalty. When a problem appears in B2C e-commerce service recovery, customers seem to value positively the company's efforts and procedures to re-establish the service.
- ✓ The special influence of negative emotions on loyalty may have its origin in the problems shoppers report with online purchases. Because logistical and payment problems often stem from provider companies that operate under their own trade name and do not deal directly with the B2C e-commerce platform, such problems may be situational and may be beyond the control of the B2C e-commerce vendor. Nevertheless, they evoke negative emotions in customers.
- ✓ Providing employees with appropriate training and technological resources enable them to recognize customers' emotions more accurately can improve the quality of interactions.



Thanks!!!