This paper examines the efficiency of different service recovery compensation types, namely monetary, quasi-monetary and non-monetary compensation. All compensation types had the same economic cost for the company. Manipulation was conducted with the use of hypothetical scenarios within the experimental design. Experimental manipulation was satisfactory as indicated by the linear regression results. ANOVA was used for the analysis of average differences among service recovery compensation types. Results have shown that consumers prefer monetary compensation (greatest efficiency) above the quasi-monetary and non-monetary compensation. There were no significant differences between quasi-monetary and non-monetary compensation types. In case of severe service failure managers should give consumers a monetary compensation as a way of restoring their satisfaction. In cases of milder service failures quasi-monetary or non-monetary compensation are equally efficient in restoring satisfaction.

Key words: service recovery, compensation type, hypothetical scenarios, customer satisfaction.

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1. Introduction

Customer satisfaction presents one of the key concepts in modern services retailing. It has been proven that customer’s satisfaction is positively related to customer loyalty and subsequently to firm profitability. It is a greater challenge to achieve high level of customer satisfaction in services retailing than in selling fast moving consumer goods due to the greater number of factors that influence customer satisfaction in service setting. Therefore, service retailers will have greater number of dissatisfied customers resulting from the fact that some part of service delivery process did not meet customer’s expectations. A phenomenon known in the literature as service failure. To deal with service failures, retailers design, in advance, procedures for correcting the perceived mistakes (failures) through the process of service recovery. The final goal of service recovery actions is to restore customer satisfaction to pre-failure level or even higher, the latter case is known in the literature as service recovery paradox.

The main goal of this research is to determine the efficiency of different service recovery compensation types in restoring customer satisfaction after service failure. Customer satisfaction was measured as a central concept together with four additional concepts, namely: word-of-mouth recommendation, repurchase intentions, attributions of blame and attributions of control. The rationale behind explicit measuring of the stated concepts is to evaluate the success of experimental manipulation through the use of hypothetical scenarios by testing the hypothesized direction of relationship between each of the concept for each of the three experimental conditions before conducting ANOVA. Three service recovery compensation types have been tested in experimental setting, monetary, quasi-monetary and non-monetary. All compensation types had the same economic cost for the retailer either through lost sales or through cash outflows. Data were analyzed using linear regression and one-way ANOVA. To authors knowledge, this type of study has not been previously conducted among Croatian consumers, neither have hypothetical scenarios been used as a preferred experimental manipulation tool in retail service studies in Croatia.

fields of social psychology and consumer behavior into a single conceptual model explained by the attribution theory and customer satisfaction research on attitudes and behavioral intentions. This area has received little attention from academic researchers in Croatia and there is a noticeable gap in knowledge about the behavior of Croatian consumers after they experience service failure. Service sector has an increasing importance for the Croatian economy with the constant average rise of the tourism and hospitality industry in Croatia, especially during the summer months. Therefore, managers of service business in tourism sector will have special interest in findings from this paper in their effort to design the most appropriate procedures and compensation types for restoring customer satisfaction and maintaining relationships with them.

The remainder of this paper is structured as follows. In next chapter we present the theoretical framework for the paper and explain our hypothesis. Detailed explication of methodology is presented next. In section 4 we present the results of the analysis. The paper ends with conclusion elaborating on results, managerial implications and further research directions.

2. Theoretical framework, conceptual model and hypothesis

Customer satisfaction is often viewed as a central concept between service retailer operations and profitability (Zeithaml et al., 2009). Numerous characteristics of service setting such as price, quality, consumer’s personal characteristics etc. are perceived to be summed into the concept of customer satisfaction. According to theory, consistently high level of customer satisfaction should result in customer loyalty to focal service retailer. Customer loyalty is marked by a long term commitment of customer’s to patronize a retailer despite the fact that certain elements of retail mix that other retailers offer have better utility for the customer (Bolton et al., 2004). Numerous financial and nonfinancial benefits are accrued by retailer as well as consumer as a result of this relationship (Reichheld, 1996, Reichheld and Schefter, 2000).

Boulding et al. (1993) have proved that high customer satisfaction with service quality positively affects behavioral intentions such as repurchase intentions and word-of-mouth recommendations. These results have been replicated in virtual settings (e-services) as well (Jeong et al., 2003). Customers with higher satisfaction also have higher willingness-to-pay for the same level of service than less loyal customers (Homburg et al., 2005).

Empirical papers have proven that positive relationship exists between customer satisfaction, customer loyalty and profitability of the retailer (Reichheld and
Sasser Jr, 1990, Anderson et al., 1994, Oliver and Swan, 1989a, Oliver and Swan, 1989b), although that relationship is not as strong as it was hypothesized (Reinartz and Kumar, 2002). Research among Croatian FMCG consumers has shown that loyal customers are more price sensitive and spend less on food items than less price sensitive consumer. Furthermore, they spend less at retailer with whom they have higher level of loyalty (Anić, 2010).

It can be summed that empirical research has confirmed positive relationship between customer’s satisfaction, customer loyalty and profitability. Evidence was provided for a positive relationship between various behavioral intentions expressed by satisfied and loyal customers such as repurchase intentions, word-of-mouth recommendations and willingness-to-pay. Most of the studies have been conducted using real life data obtained from the retailer, usually collected through the customer loyalty program. Methodology was proven useful and robust across different service industry settings.

Service failure, for the purposes of this paper, can be defined as an encounter between a retailer and a customer during which one or more elements of the service delivery process did not meet customers’ expectations (Lovelock and Wirtz, 2011). The end result of a service failure is a decline in overall satisfaction of the customer with the retailer. Customer’s expectations present a benchmark against which the customer evaluates each consumed service and forms an overall satisfaction (Swartz and Iacobucci, 2000). Customer’s expectations can be met or disconfirmed. Disconfirmation of customer’s expectations can be positive or negative (Oliver, 2010).

Several factors influence the magnitude of the effect of the negative disconfirmation of expectations on customer satisfaction. Attribution theory (Heider, 1958, Kelley, 1973) has proven useful in providing explanation for some of the variance in customer satisfaction after service failure. Attribution theory is more of a set of theories than a theory on its own. It comprises a long stream of research from the field of social psychology explaining the process of causal reasoning (how people assign causes to certain events). It has been proven that negative and unexpected events, which service failure is, have high probability of triggering the process of causal reasoning.

Weiner (1986) has suggested that three dimensions of attribution significantly explain the variance in customers satisfaction, namely: stability, locus of control and control. If people perceive the negative event as a one-time coincidence their decline of satisfaction will be less than if they perceive the negative event to be a common occurrence. Locus of control (internal vs. external) states that if people perceive the negative event to be caused from within the company (e.g. technical error) their satisfaction will suffer stronger decline than if they believe
that the cause lies outside the company (e.g. weather conditions). Finally, if the company has greater perceived control over the negative event than consumer will have lower satisfaction than if the perceived control over the negative event is smaller. Numerous empirical studies have proven the usefulness of this theory in service failure context (Vázquez-Casielles et al., 2007, Wirtz and Mattila, 2004). Further studies have expanded this framework by adding an additional dimension such as the attributions of blame (Maxham III and Netemeyer, 2002) which mark the degree to which customers hold the company responsible for the negative event.

Based on the preceding discussion we have devised the conceptual model presented in Figure 1 for the purposes of experimental manipulation check. We specifically test the direction of five relationships between five concepts as the theory suggests.

H1a: There is a positive relationship between attributions of control and attributions of blame.

H1b: There is a negative relationship between the attributions of control and satisfaction.

H1c: There is a negative relationship between the attributions of blame and satisfaction.

H1d: There is a positive relationship between satisfaction and repurchase intentions.

H1e: There is a positive relationship between satisfaction and word-of-mouth recommendations.

Figure 1.

CONCEPTUAL MODEL FOR EXPERIMENTAL MANIPULATION.
Research has shown that only 10% of customers that experience service failure actually file a complaint with the retailer (Tax and Brown, 1998). Such a low percentage of reported service failures decrease the effectiveness of service recovery efforts conducted by retailers. It has been proven that company procedures can positively affect the number of reported service failures (East, 2000). Companies should have clear guidelines for dissatisfied consumers on how to file a complaint (Bolting, 1989). Service recovery can be defined as a range of processes with an aim of discovering and effective resolving of problems in service delivery processes for the consumer. Bolton (1998) has proven that effective service recovery is a key determinant in restoring the satisfaction of customer.

Studies in service recovery efforts face several problems. First of all it is rather difficult to collect the much needed sample of consumers for the data collection since most companies do not hold records of the customers that have experienced service failure. Secondly, it would be rather unethical and managerially unwise to cause a service failure, implement service recovery procedure and then measure the variables of interest. In order to bypass these problems, researchers have used hypothetical scenarios to manipulate severity of service failure and/or service recovery effort among the desired population. This methodology has proven itself useful in early stages of the research and especially in theory testing.

In the line with the previous reasoning we have tested the efficiency of three types of compensation received by customers during the service recovery process in restoring customer satisfaction using hypothetical scenarios in the experimental design setting. According to economic theory, rational people prefer money as a reward for their effort because they can easily exchange money for any good that brings them greater marginal utility hence they can achieve greater overall utility. Based on preceding discussion we have set the following hypothesis (conceptual model is presented in Figure 2).

H2a: Customers who receive monetary compensation after experiencing service failure will have higher satisfaction than customers who receive quasi-monetary of non-monetary compensation.

H2b: Customers who receive quasi-monetary compensation after experiencing service failure will have higher satisfaction than customers who receive non-monetary compensation.

Conceptual model is presented in Figure 2.
3. Methodology

In order to test the two conceptual models we have conducted an experiment with the use of hypothetical scenarios on a sample of university students. This methodological framework is a common practice in service failure and recovery literature (McCollough et al., 2000, Hess et al., 2007, Chan et al., 2007, Choi and Mattila, 2008, Priluck and Lala, 2009). Although hypothetical scenarios do not present the full richness of the actual service failure situation, their ease of manipulation allows for the stronger causal inferences to be made. Hence, this type of methodology has a high level of internal validity which is prerequisite for external validity (María and Miller, 2010). Bateson and Hui (1992) have proven the ecological validity of this methodology.

Hypothetical scenarios described the situation in which a first year university student orders a textbooks from the e-retailer but the delivery date (a service process) is prolonged well into the semester, hence leaving the student without the much required literature for the courses (a service failure). When the textbook were finally delivered the e-retailer offers compensation (a three level independent variable). First group received a return of 20% of their funds in cash as service recovery compensation; second group received a discount of 20% of the textbooks price for their next purchase with the same retailer and a third group received a free book also worth 20% of their initial textbooks purchase price.

After reading the scenarios, participants were asked to answer a short questionnaire. Measures for the constructs have been adapted from the previous studies by Vázquez-Casielles et al., (2007) and Maxham III and Netemeyer (2002). As a token of appreciation for their effort, each participant received a waffle candy bar.
3.1. Sample characteristics

Final sample consisted of 79 participants with an average age of 21.6 years, 28% of the participants were males and 62% females. Most of the participants (55%) stated that pocket-money was their main source of income followed by 24% of participants whose main source of income was paycheck and 61% of participants lived with their parents.

3.2. Measurement scales

Each construct was measured by three Likert type statements on a scale from 1 (strongly disagree) to 7 (strongly agree). Final score on each construct for each participant was obtained by summing the results from the individual statements. Detailed measurement scales characteristics are presented in Table 1 and Inter-item correlations are presented in Table 2.

Table 1.

<table>
<thead>
<tr>
<th>MEASUREMENT SCALE CHARACTERISTICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attributions of control</td>
</tr>
<tr>
<td>---------------------------</td>
</tr>
<tr>
<td>Average</td>
</tr>
<tr>
<td>Cronbach’s α (alpha)</td>
</tr>
</tbody>
</table>
Table 2.

INTER-ITEM CORRELATIONS

<table>
<thead>
<tr>
<th>Attributions of control</th>
<th>Attributions of blame</th>
<th>Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 1</td>
<td>Item 2</td>
<td>Item 3</td>
</tr>
<tr>
<td>Item 1</td>
<td>1.000</td>
<td>.538</td>
</tr>
<tr>
<td>Item 2</td>
<td>.538</td>
<td>1.000</td>
</tr>
<tr>
<td>Item 3</td>
<td>.660</td>
<td>.574</td>
</tr>
</tbody>
</table>

<p>| Repurchase intentions   | Word-of-mouth         |</p>
<table>
<thead>
<tr>
<th></th>
<th>recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 1</td>
<td>Item 2</td>
</tr>
<tr>
<td>Item 1</td>
<td>1.000</td>
</tr>
<tr>
<td>Item 2</td>
<td>.707</td>
</tr>
<tr>
<td>Item 3</td>
<td>.783</td>
</tr>
</tbody>
</table>

It can be seen from Tables 1 and 2 that construct measures have satisfying characteristic. All cronbach’s alpha values except satisfaction exceed .8 which can be considered very good. Alpha value of .797 for satisfaction is also acceptable as is exceeds a cutoff value of .7. All inter-item correlations are above .5.

4. Analysis and results

To test hypothesis H1a through H1e we have conducted a series of simple linear regressions for each of the relationships hypothesized in the conceptual model on Figure 1. for each of the experiment groups. Beta coefficients from the regression equation are presented in Table 3.

Table 3.

BETA COEFFICIENTS FROM SIMPLE LINEAR REGRESSION FOR MANIPULATION CHECK.

<table>
<thead>
<tr>
<th></th>
<th>AC → AB</th>
<th>AC → SAT</th>
<th>AB → SAT</th>
<th>SAT → RI</th>
<th>SAT → WMR</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. group</td>
<td>.614 (p &lt; .000)</td>
<td>-.059 (p = .743)</td>
<td>-.076 (p = .684)</td>
<td>.956 (p &lt; .000)</td>
<td>1.022 (p &lt; .000)</td>
</tr>
<tr>
<td>2. group</td>
<td>.566 (p = .016)</td>
<td>-.342 (p = .185)</td>
<td>-.010 (p = .963)</td>
<td>.846 (p &lt; .000)</td>
<td>.631 (p = .001)</td>
</tr>
<tr>
<td>3. group</td>
<td>.639 (p = .007)</td>
<td>-.277 (p &lt; .250)</td>
<td>-.608 (p &lt; .000)</td>
<td>.834 (p &lt; .000)</td>
<td>.843 (p &lt; .000)</td>
</tr>
</tbody>
</table>

NOTE: AC = attributions of control, AB = attributions of blame, SAT = satisfaction, RI = repurchase intentions, WMR = word-of-mouth recommendations.
Based on the results from Table 3 it can be seen that there is a significant positive relationship between attributions of control and attributions of blame for all three experimental groups, hence, hypothesis H1a is confirmed. Although all of the beta coefficients for the relationship between attributions of control and satisfaction are negative as hypothesized their p-values show that the relationship is not significant hence the H1b hypothesis is rejected. Relationship between attributions of blame and satisfaction are negative as hypothesized but only the relationship for the third group is statistically significant hence we do not have sufficient evidence to confirm the H1c hypothesis so it is rejected. Finally, relationships between satisfaction and repurchase intentions and satisfaction and word-of-mouth recommendations are all positive and statistically significant hence we have confirmed the H1d and H1e hypothesis.

It can be concluded, based on the results presented in the preceding paragraph that manipulation was successful. Two hypotheses were not confirmed while other hypotheses were fully confirmed. Based on these results we proceed to the next step of the analysis and we test the model presented on Figure 2 (hypotheses H2a and H2b).

Before conducting ANOVA all of the assumptions were checked. Three outliers were found and deleted from the sample. Assumptions of normality was met for all groups (Table 4) and assumptions of homogeneity of variance was also met, Brown-Forsythe $F (2,73) = .888$, $p = .416$. All assumptions were met.

*Table 4.*

<table>
<thead>
<tr>
<th>Compensation type</th>
<th>Kolmogorov-Smirnov</th>
<th>df</th>
<th>p</th>
<th>Shapiro-Wilk</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monetary</td>
<td>.175</td>
<td>25</td>
<td>.047</td>
<td>.956</td>
<td>25</td>
<td>.333</td>
</tr>
<tr>
<td>Quasi-monetary</td>
<td>.111</td>
<td>25</td>
<td>.200</td>
<td>.950</td>
<td>25</td>
<td>.252</td>
</tr>
<tr>
<td>Non-monetary</td>
<td>.145</td>
<td>26</td>
<td>.169</td>
<td>.962</td>
<td>26</td>
<td>.431</td>
</tr>
</tbody>
</table>

There was a significant difference in customer satisfaction among the levels of compensation type $F (2,73) = 3.874$, $p = .025$, $\eta^2 = .096$ (Table 5).
Table 5.

ANOVA RESULTS.

<table>
<thead>
<tr>
<th></th>
<th>Sum of squares (III)</th>
<th>df</th>
<th>Mean square</th>
<th>F</th>
<th>p</th>
<th>$\eta^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compensation type</td>
<td>83.945</td>
<td>2</td>
<td>41.972</td>
<td>3.874</td>
<td>&lt; .025</td>
<td>.096</td>
</tr>
<tr>
<td>Error</td>
<td>790.845</td>
<td>73</td>
<td>10.833</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$R^2 = .096$, adjusted $R^2 = .071$

Figure 3.

MEAN AVERAGE CUSTOMER SATISFACTION AS A FUNCTION OF COMPENSATION TYPE.

In order to find the pattern of differences on the average customer satisfaction among levels of compensation type a priori pairwise comparisons were performed for each level of compensation type. Results of the pairwise comparisons analysis are presented in Table 6.
Table 6.
PAIRWISE COMPARISONS RESULTS FOR CUSTOMER SATISFACTION AS FUNCTION OF COMPENSATION TYPE

<table>
<thead>
<tr>
<th>Compensation type</th>
<th>Mean difference</th>
<th>Std. Error</th>
<th>p</th>
<th>CI (95%) Lower bound</th>
<th>CI (95%) Upper bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monetary</td>
<td>Quasi-monetary</td>
<td>2.040</td>
<td>.931</td>
<td>.032</td>
<td>3.895</td>
</tr>
<tr>
<td>Monetary</td>
<td>Non-monetary</td>
<td>2.386</td>
<td>.922</td>
<td>.012</td>
<td>4.234</td>
</tr>
<tr>
<td>Non-monetary</td>
<td>Quasi-monetary</td>
<td>-.346</td>
<td>.922</td>
<td>.708</td>
<td>1.491</td>
</tr>
</tbody>
</table>

Pairwise comparisons results show that customers who have received monetary compensation have significantly higher satisfaction than customers who have received quasi-monetary compensation ($M_{m}-M_{qm} = 2.040$, $p = .032$). Furthermore, it is evident that customers who have received monetary compensation have significantly higher satisfaction than customers who have received non-monetary compensation ($M_{m}-M_{nm} = 2.386$, $p = .012$). Based on these results we find sufficient evidence to confirm H2a hypothesis.

Mean difference on satisfaction between consumers who have received quasi-monetary compensation was in the hypothesized direction but not significantly different from the customers who received non-monetary compensation ($M_{nm}-M_{qn} = -.346$, $p = .708$). Hence, there is not enough evidence to accept the H2b hypothesis and it is rejected. Several comments on reasons for not rejecting the H2b hypothesis can be outlined. First of all, the mean difference between the two groups is rather small which lowers the probability of finding it to be significant. In the case of small mean difference one should increase the sample in order to get smaller variability and subsequently significant results. Secondly, hypothetical scenarios can also be reworded in order to more effectively point to the difference in compensation type. The latter option seems least desirable since it should be done in the same manner to all three scenarios in order to maintain the consistency throughout scenarios. In further studies one should keep a note of these comments in order to avoid non-significant results.

5. Conclusion

This paper explored the variations in customer satisfaction after service failure and recovery based on the compensation type that customers received in the
service recovery process. Experimental manipulation was successful. It has been proven that monetary compensation has the greatest efficiency in restoring customer satisfaction after a service failure while there was no statistically significant difference in satisfaction between quasi-monetary and non-monetary compensation.

Several managerial implications can be derived from this result. First of all, if the service failure is severe it would be wise for the retailer to offer monetary compensation for it is the best way of restoring customer satisfaction. If the service failure is not severe, it would be wise for the retailer to offer quasi-monetary compensation rather than non-monetary compensation. The rationale behind this statement lies in the fact that for the consumer to use the quasi-monetary compensation it has to go through the buying process once more (no such request is made with the non-monetary compensation). While a consumer goes through the buying process, retailers can use various strategies (e.g. recommendation agents for cross merchandising) to offer them other products hence increase sales and profitability and strengthen the relationship with the customer.

The following example can better illustrate previous discussion. A dissatisfied hotel guest can receive three different options in the service recovery process, financial refund (monetary compensation), a discount during his/her next stay (quasi-monetary compensation) or a free hotel gift (non-monetary compensation), all bearing the same economic cost for the hotel. Based on the results of this research, the guest should be most satisfied with the received financial refund hence it should be offered for the most severe service failures. When service failure is not severe, results suggest that is should be the same for the hotel to offer a discount or a free gift to the guest. However, marketing rationale offers further insights. With the hotel gift, the guest does not have to extend the relationship with the hotel to utilize the gift. But with the discount for the next stay the guest must use hotel services (at least) once more to utilize hotel compensation for the failure. Hence from the marketing perspective it is better to use discount for the next stay (quasi-monetary compensation) than hotel gift (non-monetary compensation) as the former will result in increased marginal income from the next visit or it will stay unused and cause no expense to the hotel.

This research has successfully tested theory in controlled, experimentally manipulated conditions among Croatian consumers. Based on the results it has been proven that presented conceptual model has a satisfactory level of internal validity. However, one of the limitations of the present study is relatively low level of external validity. In order to increase external validity further studies should test and extend presented findings in at least couple of directions. This research results need to be empirically tested in non-experimental setting. Future studies should include consumers who have indeed experienced service failure and received compensation in line with the types researched in this paper so that here
presented findings can be verified in the field study. To test the robustness and boundaries of the results the study should be replicated in various service industry settings. Variance tends to be higher in field studies than in experimental design studies so larger samples should be used in order to avoid non significant results like the ones observed in the test of the H2b hypothesis.

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Zahtjevne riječi: ispravak neisporučene usluge, tip kompenzacije, hipotetski scenariji, zadovoljstvo potrošača.