



**HEC MONTRÉAL**

École affiliée à l'Université de Montréal

**When Questions Change Customer Revenge  
Responses: Studying the Effects of Form and  
Content of Questionnaires over Time**

par

**Mina Rohani**

Thèse présentée en vue de l'obtention du grade de Ph.D. en administration  
(option Marketing)

Juillet 2014

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Cette thèse intitulée:

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Présentée par :

**Mina Rohani**

a été évaluée par un jury composé des personnes suivantes:

François Bellavance  
HEC Montréal  
Président-rapporteur

Yany Grégoire  
HEC Montréal  
Directeur de recherche

Renaud Legoux  
HEC Montréal  
Membre du jury

Katherine N. Lemon  
Boston College  
Examinatrice externe

Christian Vanderberghe  
HEC Montréal  
Représentant du directeur de HEC Montréal

## Résumé

Cette thèse s'articule autour de deux essais empiriques traitant de la vengeance des consommateurs dans un contexte de double déviation, c'est-à-dire un échec de service suivi d'une mauvaise récupération.

Le premier essai traite de la controverse portant sur les effets du temps sur la vengeance des consommateurs. Il examine les effets du temps et de la « mesure » (mere-measurement) —questionner les consommateurs— sur l'évolution de la vengeance des consommateurs. Notre expérience longitudinale réalisée auprès de vrais plaignants en ligne démontre que l'atténuation des effets du temps sur les comportements de vengeance dépend de deux conditions: 1) la présence de la « mesure », et 2) la nature cognitive vs émotionnelle du comportement de vengeance. En particulier, le temps réduit la vengeance uniquement s'il est associé à la réponse à de multiples sondages. De plus, cette diminution tend à être forte et quadratique pour les réponses émotives, alors qu'elle est légère et linéaire dans le cas des réponses cognitives.

Le deuxième essai explore de quelle façon les différentes formes de questionnaire (à savoir, les sondages à réponses ouvertes par opposition aux sondages pré-formatés) et leurs différents contenus (uniquement cognitif, uniquement émotif, ou les deux) influencent les comportements de vengeance et de réconciliation des consommateurs au cours du temps. Grâce à une expérience longitudinale sur le terrain auprès des consommateurs se plaignant sur Internet, les résultats démontrent que: 1) le « sondage pré formaté traitant à la fois les aspects cognitifs et émotifs » est le format de questionnaire le plus performant pour réduire le comportement de vengeance et pour encourager le désir de réconciliation. 2) Paradoxalement, les sondages à réponses ouvertes amplifient les comportements de vengeance et réduisent la volonté de se réconcilier.

*Mots-clés:* mesure, effet du temps, motifs négatifs sous-entendus, trahison, colère, désir de vengeance, désir d'évitement, désir de réconciliation, sondage pré formaté, sondages à réponses ouvertes, double déviation, recherche longitudinale.

## **Abstract**

This dissertation is structured around two empirical essays in the field of customer revenge, in the context of double deviation, i.e., a service failure followed by a poor recovery.

The first essay aims to resolve the extant controversy regarding the effects of time on customer revenge. It demonstrates the effects of time and mere-measurement—posing questions to a participant—on the evolution of customer revenge. Using a longitudinal field experiment with real online complainers, the results suggest that the attenuation effects of time on customer revenge responses is contingent on two conditions: 1) the presence of the mere-measurement, and 2) the cognitive vs. emotional nature of a revenge response. In particular, time has reduction effects on revenge only if it is combined with answering multiple surveys. Moreover, this reduction tends to be sharp and quadratic for emotions, compared to small and linear for cognitions.

The second essay explores how different questionnaire forms (i.e., expressive writings vs. pre-formatted surveys) and contents (i.e., cognitions only, emotions only, both cognitions and emotions) influence customer revenge and reconciliation responses over time. Performing a longitudinal field experiment on online complainers, the results demonstrate that: 1) the “pre-formatted surveys about both cognitions and emotions” is the optimal questionnaire in reducing customer revenge responses and promoting desire for reconciliation. 2) Paradoxically, the expressive writings amplify customer revenge responses as well as reduce desire for reconciliation.

*Keywords:* mere-measurement, the effect of time, inferred negative motives, betrayal, anger, desire for revenge, desire for avoidance, desire for reconciliation, pre-formatted survey, expressive writing, double deviation, longitudinal research.

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## Acknowledgements

*Be melting snow.*

*Wash yourself of yourself.*

Rumi, 1207 AD

To begin, I would like to express my deepest gratitude to my advisor, Professor Yany Grégoire, for his continuous mentorship, support and caring. I would like to thank Yany for encouraging my research and supporting me in every step throughout these years with his very positive attitude and openness. I consider him as my academic “big brother”. From him, I learned to value every small idea and to be positive and courageous. I always felt inspired after our meetings. The opportunity to work closely with Yany has been priceless, and I will always be grateful for his sincere efforts to help me evolve as a researcher.

I will forever be thankful to Professor Katherine N. Lemon—my external examiner. Kay is someone who I instantly liked and always enjoy her countless support, commitment, and enthusiasm about my research. I am indebted to her for reading my dissertation and sharing her insights and giving me feedback on my work.

I would like to express my special appreciation and thanks to Professor Renaud Legoux for serving as my internal committee member and for his constructive feedback. His helpful comments improved the quality of the dissertation and will be a big plus in the publication process.

My heartfelt thanks are extended to Professor Jean-Charles Chebat who never stopped encouraging and supporting me. Professor Chebat was the first person who believed in my potential and helped me to start the PhD journey in Canada. His support and guidance will always be remembered.

I would like to acknowledge Professor Roy Toffoli, from Université du Québec à Montréal (UQAM), and Professor François Bellavance, my thesis rapporteur, for reading the drafts of my dissertation and for their constructive feedback.

I would like to thank [consumeraffairs.com](http://consumeraffairs.com), and specially Mr. Zac Carman for

providing access to data. I am also very grateful for support provided by HEC Montréal, Department of Marketing. I am proud to be associated with this group.

My heartfelt thanks to my beloved husband who is also my best and forever friend, Nasser Shahrabi. Words cannot express how grateful I am to him for all his love, patience, kindness, support, and respect. I dedicate this dissertation to him. A special thanks to my family, specially my loving parents and my sister and brother-in-law for all their support and love throughout my life. This dissertation is dedicated to them. I want to express my sincere gratitude to my mother-in-law and my father-in-law. Their prayer for me was what sustained me thus far. I also dedicate this dissertation to them. It is with my deepest gratitude and warmest affection that I also dedicate this dissertation to my sweet and loving grand-mother who has been my constant source of love, inspiration and tenacity.

At the end, I would like express appreciation to my friends and colleagues at HEC Montréal and elsewhere for the unforgettable times we spent together throughout these years, and for their invaluable comments and suggestions. I specially thank Mostafa Purmehdi, Narjes Haj-Salem, and Azadeh Savoli for supporting me and providing me with help whenever I most needed it.

## **Chapter I - Introduction**

Today, it seems that aggrieved consumers are everywhere. Customers become furious and feel a desire for revenge when they perceive themselves to be unfairly treated by service providers. As a result, it is common from the customers' perspective to seek revenge and "get even" with the firm because of the harm it has caused (Bechwati & Morrin, 2003). Understanding ways to reduce customer revenge is important for both firms and customers.

On the one hand, firms whose aggrieved customers decide to take revenge may encounter serious consequences such as losing profit-making and reputation (Tripp & Grégoire, 2011). The angry customers are the most aggressive actors in the marketplace (Zourrig, Chebat, & Toffoli, 2009). On the other hand, holding revenge over time entails high levels of cognitive and emotional energy for the customer (Bies & Tripp, 1996) which may jeopardize their physical and psychological wellbeing (Greenberg & Stone, 1992; Kivimäki et al., 2005; Tepper, 2001).

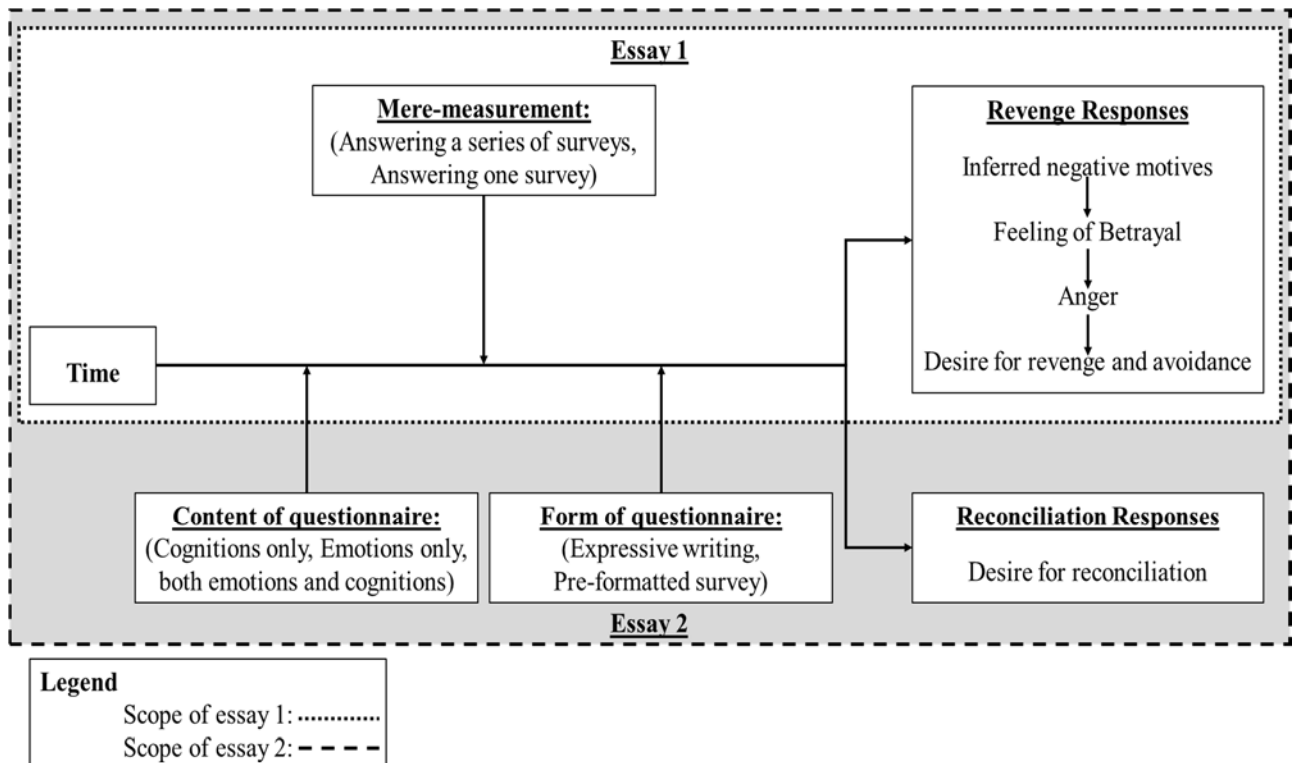
Indeed, prior research in social psychology (e.g., McCullough, Fincham, & Tsang, 2003), organizational psychology (e.g., Aquino, Tripp, & Bies, 2001; Bies, Tripp, & Kramer, 1997), and consumer behavior (e.g., Bechwati & Morrin, 2003; Penttilä, 2005) provides valuable insights into the revenge process. The findings of these studies suggest that revenge is short-lived and substantially attenuates over time.

In line with these findings, this dissertation further explores the effects of time on customer revenge responses and focuses in particular on a methodological artifact known as mere-measurement, i.e., asking questions to a participant. More specifically, it aims to conceptualize mere-measurement over time and put it into practice in a consumer context following a double deviation—a sequence of a service failure followed by a poor recovery (Bitner, Booms, & Tetreault, 1990). In other words, the present dissertation studies the effects of answering various

forms and contents of questionnaires over time on the customer revenge and reconciliation responses (See Figure 1-1). So, the four following research questions motivate this dissertation: First, how does mere-measurement affect the revenge responses over time? Second, if a mere-measurement effect exists, does it have the same pattern for cognitions vs. emotions? Third, how do different forms (i.e., expressive writings and pre-formatted surveys) and contents (i.e., cognitions only, emotions only, both cognitions and emotions) of questionnaires influence customer revenge responses over time? Fourth, is there a specific form and content of questionnaire that can promote reconciliation over time?

To answer these questions, this dissertation, which is composed of two essays, performs two longitudinal field experiments with an online third party organization, ConsumerAffairs.com. Figure 1-1 presents a conceptual framework for this dissertation.

**Figure 1-1. Conceptual framework**





The first essay investigates the effects of time and mere-measurement on the evolution of revenge responses. Previous research in social psychology have extensively applied longitudinal field experiments to study revenge and forgiveness (e.g., McCullough, Bellah, Kilpatrick, & Johnson, 2001; McCullough, Bono, & Root, 2007; McCullough et al., 2003). These studies suggest an attenuation effects of time on revenge responses, while they disregard the plausible confounding effects of mere-measurement with time (Fitzsimons & Morwitz, 1996). This motivates the first essay to scrutinize whether conventionally-assumed reduction in revenge responses is truly explained by the effect of time or rather mere-measurement effects over time.

To answer this question, the study applies a longitudinal field experiment with real online complainers over 60-days. The study involved two conditions. The first condition includes a series of four questionnaires that were administered every two weeks over a two-month period. The second condition involved a survey that was sent only at the end of two months. Respondents were randomly assigned to one of the two conditions. In the first condition, 111 aggrieved customers completed the four surveys over time. In the second condition, 56 respondents completed the only survey received after the two month period.

Overall, the results suggest that the reduction in revenge is explained by the action of answering a series of questionnaires (mere-measurement) over time. This, in fact, is in contrary to the belief that “time heals all wounds”, i.e. time has a depreciatory effect on revenge. In particular, the results show that the aggrieved customers’ desire for revenge reduces more when they answer multiple surveys over time rather than only one survey. Moreover, it shows that the attenuation effect of mere-measurement over time is contingent on the nature of the revenge responses (i.e., cognitions vs. emotions). In other words, the catharsis effect of mere-measurement over time is more pronounced for emotions compared to cognitions. Specifically, the results show that cognitive variables (i.e., inferred negative motives and perceived betrayal) follow a mild and linear decreasing

pattern. This, perhaps can be explained by the nature of cognitive perceptions (e.g., inferred negative motives and perceived betrayal) that are rooted in deep beliefs. So, they are unlikely to reduce and more likely to sustain with the combined effects of time and mere-measurement. In contrary to the cognitive variables, the emotional variables such as anger decrease in a sharp non-linear pattern following a longitudinal mere-measurement. For these “hot” negative emotions, the effect of time is greatly amplified when it is combined with mere-measurement, and the steepest attenuation is noted after answering the first survey. A longitudinal mere-measurement allows aggrieved customers to vent their negative emotions and make sense of the service failure and the following poor recovery.

These findings suggest that the aggrieved customers can play an active role in managing their revenge responses. This is while previous studies mostly looked for offering firms a silver bullet such as compensation or apology (e.g., Bonifield & Cole, 2007; Bougie, Pieters, & Zeelenberg, 2003; Nguyen & McColl-Kennedy, 2003), relegating the active role to the firms rather than the aggrieved customers to internally deal with the negative event and control revenge responses on their own.

Drawing on the findings of the first essay, the second essay focuses on the form and content of questionnaires and examines how different questionnaire forms (i.e., expressive writings vs. pre-formatted surveys) and contents (i.e., cognitions only, emotions only, both cognitions and emotions) would influence customer revenge and reconciliation responses following a double deviation situation. Double deviation refers to a sequence of a service failure followed by a poor recovery (Bitner et al., 1990). Expressive writings refer to a mere-measurement method that asks open-ended questions allowing self-expression through writing about negative experiences (Lepore, Greenberg, Bruno, & Smyth, 2002). A pre-formatted survey is another form of mere-measurement method that has been applied in customer behaviors research (e.g., Fitzsimons & Morwitz, 1996; Morwitz & Fitzsimons, 2004). The second essay also manipulates the

content of questionnaires to understand which content attenuates customer revenge responses and promote desire for reconciliation—a customer’s willingness of accepting a firm’s failure in a hope of maintaining a relationship and continuing his or her acts of good will toward the firm (Aquino, Tripp, & Bies, 2006).

A longitudinal field experiment was conducted in collaboration with an online third party review website (ConsumerAffairs.com). The second essay used a 2 by 3 full factorial design in which there were two forms (expressive writings vs. pre-formatted surveys), three types of content (cognitions, emotions, cognitions and emotions) of questionnaire, and a post-intervention questionnaire at wave 4, where all respondents answered a questionnaire including measures of revenge and reconciliation responses. Respondents were randomly assigned to the seven conditions and invited to participate in a series of four questionnaires (i.e., four waves) over a month period. The initial sampling frame is composed of 12021 complainers. In the first condition which was the control condition (i.e., G1), 126 respondents with 7.33% response rate completed the post-intervention questionnaire at wave 4. 119 respondents completed the four series of questionnaires with various forms and contents (i.e., G2-G7 conditions) at wave 4 with 8.08%, 31.93%, 64.28% and 69.59% response rates from wave 1 to wave 2, wave 2 to wave 3, and wave 3 to wave 4, respectively.

Overall, the results of the second essay suggests that the “pre-formatted surveys about both cognitions and emotions” condition is the optimal condition among the seven conditions in reducing customer revenge responses and promoting desire for reconciliation. In particular, the results show that most of the revenge responses (i.e., feeling of betrayal, anger, and desire for avoidance) decrease when aggrieved customers answer the longitudinal preformatted surveys concerning both their cognitions and emotions. Similarly, an amplification effect has been found regarding the customers’ desire for reconciliation in the presence of this condition. The above catharsis effect on customer revenge responses is less

pronounced for the inferred negative motives due to their cognitive nature. The results reveal that, in contrast to our expectations, the expressive writings amplify customer revenge responses and reduce desire for reconciliation.

This dissertation contributes in several ways to both research and practice. First, the findings of this dissertation challenge the generally-assumed “time heals all wounds” and draws managerial attention to the fact that it is not merely the time that reduces customer revenge, but it is the combination of time and a well-designed questionnaire. So, it is necessary for managers to create multiple opportunities for aggrieved customers to express their dissatisfaction via answering multiple questionnaires over time. Moreover, firms should be attentive to the effects of their actions on customers’ cognitions and emotions. Although creating multiple opportunities for customers to express their negative experiences over time has a catharsis effect on their negative emotions, it does not help customers to forget what happened. Indeed, inferred negative motives do not disappear from customers’ mind following a longitudinal mere-measurement even if they express less anger or desire for revenge.

Another main contribution of this dissertation is offering a simple, powerful and an inexpensive method to reduce customer revenge. This method indeed benefits both customers and firms by contributing to their psychological well-being and reputation, respectively. As the results show, answering to longitudinal multiple pre-formatted surveys that ask about both customers’ cognitions and emotions is perhaps the most effective method to reduce customer revenge responses regarding an experienced double deviation. Answering pre-formatted surveys about both cognitions and emotions allows aggrieved customers to express their negative emotions and make sense of the double deviation as well as to promote desire for reconciliation. In addition, firms should be cautious to choose an appropriate form and content of the questionnaire. As a clear example of this argument, the results of the second essay reveal that the expressive writings counterintuitively amplify customer revenge responses and reduce desire for

reconciliation.

### 1.1. References

- Aquino, K., Tripp, T. M., & Bies, R. J. (2001). How employees respond to personal offense: the effects of blame attribution, victim status, and offender status on revenge and reconciliation in the workplace. *Journal of Applied Psychology*, 86(1), 52.
- Aquino, K., Tripp, T. M., & Bies, R. J. (2006). Getting even or moving on? Power, procedural justice, and types of offense as predictors of revenge, forgiveness, reconciliation, and avoidance in organizations. *Journal of Applied Psychology*, 91(3), 653.
- Bechwati, N., & Morrin, M. (2003). Outraged consumers: Getting even at the expense of getting a good deal. *Journal of Consumer Psychology*, 13(4).
- Bies, R. J., & Tripp, T. M. (1996). Beyond distrust: "getting even" and the need for revenge.
- Bies, R. J., Tripp, T. M., & Kramer, R. M. (1997). At the breaking point: Cognitive and social dynamics of revenge in organizations.
- Bitner, M. J., Booms, B. H., & Tetreault, M. S. (1990). The service encounter: Diagnosing favorable and unfavorable incidents. *Journal of Marketing*, 54(1).
- Bonifield, C., & Cole, C. (2007). Affective responses to service failure: Anger, regret, and retaliatory versus conciliatory responses. *Marketing Letters*, 18(1-2), 85–99.
- Bougie, R., Pieters, R., & Zeelenberg, M. (2003). Angry customers don't come back, they get back: the experience and behavioral implications of anger and dissatisfaction in services. *Journal of the Academy of Marketing Science*, 31(4), 377–393.
- Fitzsimons, G. J., & Morwitz, V. G. (1996). The effect of measuring intent on brand-level purchase behavior. *Journal of Consumer Research*, 1–11.
- Greenberg, M. A., & Stone, A. A. (1992). Emotional disclosure about traumas and its relation to health: effects of previous disclosure and trauma severity. *Journal of Personality and Social Psychology*, 63(1), 75.
- Kivimäki, M., Ferrie, J. E., Brunner, E., Head, J., Shipley, M. J., Vahtera, J., & Marmot, M. G. (2005). Justice at work and reduced risk of coronary heart disease among employees: the Whitehall II Study. *Archives of Internal Medicine*, 165(19),

2245–2251.

- Lepore, S. J., Greenberg, M. A., Bruno, M., & Smyth, J. M. (2002). Expressive writing and health: Self-regulation of emotion-related experience, physiology, and behavior.
- McCullough, M. E., Bellah, C. G., Kilpatrick, S. D., & Johnson, J. L. (2001). Vengefulness: Relationships with forgiveness, rumination, well-being, and the Big Five. *Personality and Social Psychology Bulletin*, 27(5), 601–610.
- McCullough, M. E., Bono, G., & Root, L. M. (2007). Rumination, emotion, and forgiveness: three longitudinal studies. *Journal of Personality and Social Psychology*, 92(3), 490.
- McCullough, M. E., Fincham, F. D., & Tsang, J.-A. (2003). Forgiveness, forbearance, and time: the temporal unfolding of transgression-related interpersonal motivations. *Journal of Personality and Social Psychology*, 84(3), 540.
- Morwitz, V. G., & Fitzsimons, G. J. (2004). The mere-measurement effect: Why does measuring intentions change actual behavior? *Journal of Consumer Psychology*, 14(1), 64–74.
- Nguyen, D. T., & McColl-Kennedy, J. R. (2003). Diffusing customer anger in service recovery: A conceptual framework. *Australasian Marketing Journal (AMJ)*, 11(2), 46–55.
- Penttilä, C. (2005). Angry customers are using the internet to get revenge: how can you keep them happy? *Entrepreneur Magazine*, Available at: [Www. Entrepreneur.com/magazine/entrepreneur/2005/april/issue116068. Html](http://www.Entrepreneur.com/magazine/entrepreneur/2005/april/issue116068.Html) (accessed September 30, 2009).
- Tepper, B. J. (2001). Health consequences of organizational injustice: Tests of main and interactive effects. *Organizational Behavior and Human Decision Processes*, 86(2), 197–215.
- Tripp, T. M., Grégoire, Y., & Business, S. (2011). When unhappy customers strike back on the Internet.
- Zourrig, H., Chebat, J. C., & Toffoli, R. (2009). Consumer revenge behavior: a cross-cultural perspective. *Journal of Business Research*, 62(10), 995–1001.

**Chapter II - Article. 1**

**The Effects of Mere-Measurement and Time on  
the Customer Revenge Responses: When Time Does  
Not Heal All Wounds**

**Mina Rohani**

HEC Montréal

3000, chemin de la Côte-Ste-Catherine

Montréal, Québec, H3T 2A7

Canada

[mina.rohani@hec.ca](mailto:mina.rohani@hec.ca)



## 2.1. Abstract

This research explores the interactive effects of time and mere-measurement—posing questions to a participant—on the evolution of the customer revenge responses. Prior research reports that time has a robust depreciatory effect on revenge. The current research suggests that the reducing effect of time is contingent on two elements. First, time reduces revenge *only if* it is combined with a mere-measurement effect. Second, the combined effects of time and mere-measurement depend on the nature of the revenge responses (cognitions vs. emotions). In a longitudinal field experiment with real online complainers over two months, the results demonstrate that answering multiple questionnaires over time has a much greater reducing effects on revenge responses than answering only one questionnaire. In addition, this effect is more pronounced for emotions vs. cognitions. This effect is sharp and quadratic for emotions while it is more linear and small for cognitions. Managers should be cautious about hoping that “time heals all wounds” for aggrieved customers. In order to reduce customer revenge, firms should create multiple opportunities for aggrieved customers to express their dissatisfaction rather than hoping that the negative feelings will simply dissipate over time. Firms should pay more attention to the effect of their actions on customers’ cognitions and emotions. Indeed, customers do not forget firms’ negative motives over time even if they express less anger and desire for revenge after they have answered a series of questionnaires.

*Keywords:* Mere-measurement, the effect of time, inferred negative motives, perceived betrayal, anger, desire for revenge, vindictive behavior, negative word-of-mouth, online public complaining, service failure, poor service recovery.

## 2.2. Introduction

Because of its negative repercussions on both the avenger and the transgressor, research on revenge has received increasing attention in the psychology (Bies, Tripp, & Kramer, 1997; McCullough, Fincham, & Tsang, 2003; McCullough, Kurzban, & Tabak, 2010) and the marketing literatures (Grégoire, Tripp, & Legoux, 2009; Zourrig, Chebat, & Toffoli, 2009). In both areas, a robust finding is that revenge quickly and substantially decreases over time. Scholars suggest that the customers' intense emotions (e.g., anger) and cognitions (e.g., inferred negative motives) that are difficult and unhealthy to sustain over time contribute to the dwindling trend of revenge. Hence, service providers may find comfort knowing that customer revenge is short-lived and that time seems to "heal all wounds".

The current research further explores the effects of time on the customer revenge responses. The building blocks of the revenge responses (i.e., cognitions → emotions → desire → behaviors) are based on appraisal theory (Lazarus, 1991) which suggests that customer cognitions (e.g., inferred negative motives) about the unfairness of a service delivery leads a customer to experience negative emotions (e.g., anger), which in turn drives him or her to have desire for revenge. The customer's feeling of anger as an emotional response to a service failure and desire for revenge are the major forces that leads customers to engage in extremely negative behaviors (e.g., vindictive behaviors, negative word-of-mouth) (Hibbard, Kumar, & Stern, 2001).

Revenge in the service setting is defined as customer's efforts to harm the firm to get justice regarding an inappropriate response to service failures (Bechwati & Morrin, 2003). This research addresses a key weakness of most longitudinal designs that refers to the confounding effect of the "time" with the mere-measurement effect of "answering a survey". It shows that the very fact of answering a questionnaire about a negative experience over time could influence the revenge responses. Such a measurement effect has been previously observed in

other facets of consumer behaviors, and it has been labeled mere-measurement (Fitzsimons & Morwitz, 1996) or question-behavior effect (Sprott et al., 2006). In other words, the current research explores whether the established reduction in revenge is truly explained by passing time or rather a mere-measurement effect. In addition, the present research explores the combined effects of mere-measurement and time on the cognitive vs. emotional nature of the revenge responses. It suggests that answering multiple surveys over time reduces emotional variables (e.g., anger) of the revenge responses rather than the cognitive ones (e.g., inferred negative motives). Specifically, the current research focuses on two unanswered questions: First, how does answering a series of questionnaire affect the customer revenge responses over time? Second, if a mere-measurement effect exists, does it have the same pattern for customers cognitive vs. emotional revenge responses?

Two rival explanations exist as to the first question: the “catharsis effect” versus the “amplification effect”. On the one hand, the “catharsis effect” paradigm puts forward that answering a survey regarding an unfair service experience could allow customers to vent their negative emotions and to actively process the situation (Barclay & Skarlicki, 2009). Based on this explanation, answering questionnaires should help the reduction of cognitive and negative emotional responses of the revenge over time. On the other hand, the “amplification effect” paradigm suggests that answering questions about a negative experience may lead customers to mentally retrieve and re-experience the unfair service experience (Chandon, Smith, Morwitz, Spangenberg, & Sprott, 2011; Fitzsimons & Morwitz, 1996; J. K. Smith, Gerber, & Orlich, 2003). So, it may reinforce self-focused attention on the negative mood and enhance rumination (Bono, McCullough, & Root, 2008; McCullough, Bellah, Kilpatrick, & Johnson, 2001; McCullough, Bono, & Root, 2007). Consequently, this process may motivate customers to hold the desire for revenge for a longer period of time and crystallize their intention for future revenge behaviors (e.g., negative word-of-mouth, vindictive behaviors). Moreover, this research explores the possibility of accelerated reduction vs. amplification of the revenge responses by answering multiple questionnaires. The

current research posits that time has a catharsis effects on revenge only if it is combined with a mere-measurement effect. More specifically, it argues that the desire for revenge of the respondents who answered multiple questionnaires is much lower than the desire of those who answered only one survey after a two month period.

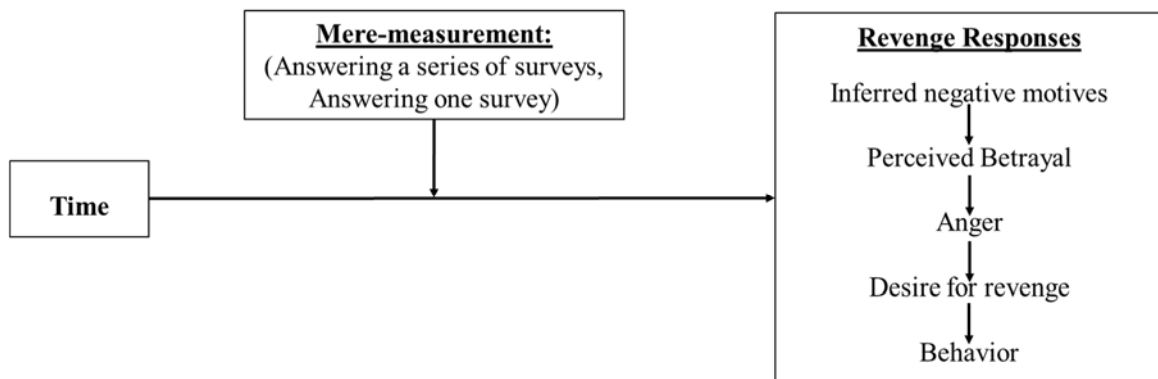
As for the second question, this research explores the effects of answering multiple questionnaires on customer's cognitive and emotional revenge responses over time. It argues that the two competitive effects of mere-measurement over time (i.e., "catharsis effects" vs. "amplification effects") are contingent upon the cognitive or emotional nature of the revenge responses. Because cognitive revenge responses are based on deep elaboration and beliefs (e.g., Lazarus & Lazarus, 1994), they are more likely to be stable over time. In other words, we expect that the combined effects of mere-measurement and time do not attenuate the intensity of cognitive variables that are based on customer's beliefs and perceptions (e.g., inferred negative motives). As time passes, most customers should preserve the same inference of negative motives, and their perception should not be affected by answering any questionnaire. However, answering multiple questionnaires over time should have a strong catharsis effect on emotional variables (e.g., anger). In other words, the effect of time on emotional variables should have been greatly amplified when customers have an opportunity to answer multiple questionnaires over time.

In the remainder of this research, we first develop the hypotheses related to the two research questions. Then, we test these hypotheses with a longitudinal field experiment that was performed over a two month period with real online complainers. In this research, we expose one group to a series of four questionnaires that were administered at a regular two week intervals, whereas the other group only completed one questionnaire after a two-month period. As we proceed, we conclude with theoretical and managerial contribution and some avenues for further research.

## 2.3. Conceptual background

The overall framework is presented in Figure 2-1. In this section, first we describe the conceptual background of the research by defining online public complaining and the revenge process. Second, we discuss the effects of time on customer revenge responses and develop the conceptual background of the research by reviewing the literature on the mere-measurement effect. We then discuss the effects of mere-measurement on the revenge responses over time, and differentiate the trends that we expect for the cognitive (i.e., inferred negative motives, perceived betrayal), emotional variables (i.e., anger), desire for revenge and behavioral responses (vindictive behaviors and negative word-of-mouth). As we proceed, we present the hypotheses related to our two questions.

**Figure 12-1. Conceptual framework**



### 2.3.1. Online public complaining

Service failures are frequent, and they lead customers to complain in many instances (McGregor, 2008). According to the “ConsumerAffairs.com” reports (2011), 91% of consumers who experience a bad service are not willing to continue their business with a firm (Swager, 2011). This report also indicates that twenty percent of customers choose public complaining to alert their friends, family and public about their service failure episodes (Charlton, 2011). Customer backlashes against service failure are important because they could damage the firm’s

reputation and profitability (Ward & Ostrom, 2006). Previous research also shows that customers who are confronted with more than one service failure and poor service recoveries are more likely to engage in online public complaining and have greater desire for revenge (Bechwati & Morrin, 2003; Bonifield & Cole, 2007; Grégoire et al., 2009; Ward & Ostrom, 2006). In light of these findings, it becomes increasingly important for managers to consider strategies to decrease the broadcast of service failure, and “nip in the bud” any online revenge initiatives.

### **2.3.2. The revenge process**

Many customers have a strong desire to hurt a service firm in response to an unfair treatment. Negative word-of-mouth (NWOM), insulting a service employee, switching to a competitor and taking legal actions are some forms of customer reactions to the service failures or poor service recoveries. Many customers may consider revenge as an appropriate mechanism for solving a service failure or receiving a fair recovery process. Revenge in a service context refers to any efforts to punish a service firm that causes inconvenience (Gouldner, 1960; Huefner & Hunt, 2000; Keeffe, Russell-Bennett, & Tombs, 2008). In other words, customers engage in revenge in order to correct a perceived inequity (Keeffe et al., 2008; Skarlicki & Folger, 1997) and get even (Huefner & Hunt, 2000).

This research builds on the revenge responses that include cognitions, emotions, desire and behaviors. Scholars have various explanations regarding the process of revenge. For instance, Keeffe et al. (2008) argue that a high level of service recovery in consequence of a service failure can reduce customer's retaliation over and above anger. Building on the literature of appraisal theory (Lazarus, 1991), we mainly focus on the revenge responses (i.e., cognitions → emotions → desire → behaviors) which argues that a customer cognition (e.g., inferred negative motives) about unfairness of a service failure leads him to experience negative emotions (e.g., anger), that may drive him to a desire for revenge. Moreover, customer anger is the major driver of customers engaging in

extremely negative behaviors such as vindictive behavior and negative word of mouth.

Accordingly, we choose customers' inferred negative motives as a cognitive construct, and perceived betrayal as a cognitive construct that also has an emotional dimension. We build the rest of the model with anger as an extreme negative emotional construct; desire for revenge, and vindictive behavior and NWOM as revenge behaviors. These constructs are appropriate because they reflect the process of the revenge in cognition, emotion, desire and behavior forms. Inferred negative motives is defined as a customer's beliefs that a firm intentionally tried to take advantage of the customer in order to maximize its own interests (Campbell, 1999; Reeder, Kumar, Hesson-McInnis, & Trafimow, 2002). Customers cognitively infer a firm's negative motives through its opportunistic actions or intentional uncaring treatments (Grégoire, Laufer, & Tripp, 2010). Accordingly, customers' inferred negative motives are associated with their perceptions of firm's betrayal. Perceived betrayal refers to violation of trust in personal relationship (Jones & Burdette, 1994). In other words, when individuals perceive that another party intentionally violates the norms of the relationships in favor of their own advantages, they perceive betrayal (Fitness, 2001; Grégoire & Fisher, 2008; Ward & Ostrom, 2006). Applying the same logic to the service failure context, Grégoire and Fisher (2008) contend that those customers who have strong relationships with the service provider feel more betrayed when they experience an unfair service failure and recovery.

Anger is defined as an impulsive strong negative emotion to react and respond to the source of anger (Bougie, Pieters, & Zeelenberg, 2003; McColl-Kennedy, Patterson, Smith, & Brady, 2009). It is an extreme negative emotion that is a result of service failure when cognitive appraisal happens (Nguyen & McColl-Kennedy, 2003).

Many scholars refer to revenge and vengeance as synonymous and interchangeable constructs (e.g., Bechwati & Morrin, 2003; Stuckless & Goranson,

1992). In sociology, revenge refers to applying injury or punishment in return to perceived harm (Stuckless & Goranson, 1992). Gottman (1993) defines revenge as a desire of righteous fury in response to harm coming from an offender. In the workplace, revenge refers to infliction of injury, discomfort and punishment from one party to the other who is perceived to be responsible for the harm (Aquino, Tripp, & Bies, 2006). In a consumer context, Bonifield and Cole (2007) suggest that revenge is composed of aggressive complaining, insisting on a cash discount. In light of these definitions, desire for revenge is defined as the motivation of causing some harm to a firm responsible for an extremely negative purchase experience (Bechwati & Morrin, 2003). In sum, desire for revenge refers to a customer's desire to harm the firm and make it pay for what happens in order to get justice regarding an inappropriate response to a service failure (Bechwati & Morrin, 2003; Grégoire & Fisher, 2008).

Customer revenge represents any efforts made by customers to punish and bring the firm down in response to the damages that the firm caused to them (Grégoire & Fisher, 2008). Customers' revenge and retaliatory behaviors are the primary cause of any form of customer's vindictive behavior and NWOM—any form of customer efforts to blemish a firm to their family and friends and motivate them to stop patronizing the firm. Customers' revenge behaviors can range from indirect actions (e.g., NWOM, exit or switch to an alternative brand) to direct physical acts of vindictive behaviors toward the service firms (e.g., verbal confrontations with the representatives of a firm or consumers making a public scene) (Harris & Reynolds, 2004).

#### **2.3.2.1. The effect of time on the customer revenge responses**

A large number of studies in psychology and marketing shows that customer revenge responses quickly decrease over time (e.g., Bonifield & Cole, 2007; Bono et al., 2008; Grégoire et al., 2009; McCullough et al., 2010). This stream of research argues that sustaining a high level of revenge over time requires



high levels of negative emotions and cognitions (Bies et al., 1997; Bonifield & Cole, 2007; Grégoire et al., 2009; Ward & Ostrom, 2006). Maintaining negative cognitions (e.g., inferred negative motives, and rumination) and emotions (e.g., anger) takes a high level of energy, which negatively affects individuals' well-being. Also, the thoughts and emotions that are related to retaliation seem unreasonably costly to maintain over time "without any promise of gains" (Bechwati & Morrin, 2003; Grégoire et al., 2009). Moreover, cognitive appraisal and emotion elicitation of revenge are conceptually different, and they have been found to have different forms of antecedents and consequences (Bonifield & Cole, 2007; Bougie et al., 2003; Schoefer & Ennew, 2005; Smith, Bolton, & Wagner, 1999). Hence, we can expect that the patterns of customers' cognitive and emotional revenge responses resulting from the multiple surveys over time would be different.

Many studies have attempted to elaborate the effects of time on individuals' behaviors and well-being via a series of longitudinal studies (Bono et al., 2008; McCullough et al., 2001, 2007; Tsang, McCullough, & Fincham, 2006). The results of the prior research basically show that revenge does not last for a long time (Bono et al., 2008; McCullough, Luna, Berry, Tabak, & Bono, 2010). For instance, the two longitudinal studies of McCullough et al. (2003) show that individuals' negative interpersonal motivations (i.e., revenge and avoidance) reduce over time following a transgression. Bono et al. (2008) also show that individuals' reduction in revenge over time is associated with greater feelings of closeness that will consequently enhance their well-being. Later, McCullough et al. (2010) identified a logarithmic model of time for individuals' forgiveness—a process of reducing one's avoidance and revenge. In other words, in two longitudinal studies they suggest that most of the reduction in revenge and increasing forgiveness happens in the first few months after a transgression occurred (McCullough et al., 2010). A series of prior research of McCullough and his colleagues (e.g., Bono et al., 2008; McCullough et al., 2001, 2007) have also concluded that factors such as severity of the transgression, commitment and

relationship closeness, rumination and Big Five personality factors influence the time-revenge relation (Bono et al., 2008; McCullough et al., 2001, 2007, 2003; Nguyen & McColl-Kennedy, 2003; Tsang et al., 2006). However, the effect of asking questions *per se* on the time-revenge relationship is undetermined. Generally, this is known as the question-behavior effect, which can be described as a “mere-measurement” effect (Morwitz, Johnson, & Schmittlein, 1993). As we describe in the following, “mere-measurement effect” may influence the effects of time on the cognitions and emotions associated with the revenge responses.

### **2.3.3. The mere-measurement effect**

Mere-measurement effects refer to the effects of asking questions to a participant (Godin, Sheeran, Conner, & Germain, 2008). Many studies have shown that asking questions can actually change the respondent’s performance of a specific behavior (Fitzsimons & Morwitz, 1996; Morwitz & Fitzsimons, 2004; Sherman, 1980; Sprott et al., 2006). The mere-measurement effect is also known as measurement reactivity, self-erasing errors of prediction, and self-generated validity (Godin et al., 2008; Morwitz et al., 1993; Sherman, 1980). Sherman (1980) shows the first demonstration of the idea that questioning can influence a focal behavior. He refers to this idea as “self-erasing errors of prediction”. The results of his research suggest that respondents overestimate the probability of engaging in desirable behaviors (e.g., volunteering for the American Cancer Society), while they underestimate the probability of engaging in undesirable behaviors (e.g., singing the Star Spangled Banner over the phone). In other words, previous research illustrates that the context of the questions can cause very different answers (Fitzsimons & Moore, 2008). In accordance with the result of Sherman (1980), Greenwald et al. (1987) show that asking questions about the likelihood to participate and vote in an election not only changes but also increases the actual voting behaviors. In the same vein, in the misattribution of mood domain people show less life satisfaction if their attention was drawn to the rainy weather by asking them a question about the weather (Schwarz & Clore, 1983).

Mere-measurement effects have also been observed in marketing and consumer domains. In customer purchase behaviors, Morwitz et al. (1993) investigated the effect of asking customers questions about their future purchasing plans and then tracking their actual purchase behavior over six months. The results of their research show that asking a question about purchasing an automobile leads to enhance actual purchase behavior of customers (Morwitz et al., 1993). In the domain of brand marketing, previous research shows that only asking a question about the intention to purchase an automobile brand—either about the brand that was previously purchased or about large market share brands—can substantially change the purchasing behaviors (Fitzsimons & Morwitz, 1996). Fitzsimons and Morwitz, (1996) suggest that asking questions to current owners of an automobile brand not only increases the likelihood of repurchasing the same brand but also enhances brand attitude consistency.

Scholars have various explanations regarding the effects of asking questions on the changes in future behaviors (Fitzsimons & Morwitz, 1996; Morwitz & Fitzsimons, 2004; Sherman, 1980). Some scholars explain the phenomenon by mechanisms such as facilitating attitude activation towards the specific behaviors (Fitzsimons & Morwitz, 1996; Morwitz & Fitzsimons, 2004). In turn, others explain that asking questions about social norms reminds individuals the difference between their behaviors and how they should behave (Spangenberg & Greenwald, 1999; Sprott, Spangenberg, & Fisher, 2003). In other words, asking questions may highlight the inconsistency between the individual's beliefs and behaviors.

#### **2.3.4. The effects of mere-measurement on the customer revenge responses over time**

We now focus on the central issue of our research: How does answering questionnaires (i.e., mere-measurement effects) over time influence the customer cognitive and emotional revenge responses? This question is important to

understand the true effect of time because it is always confounded with the effect of mere-measurement. Consistent with prior works (Fitzsimons & Moore, 2008; Fitzsimons & Morwitz, 1996; Sprott et al., 2006), we conclude that asking questions about customer intentions and behaviors regarding an unfair service experience can influence the customer's revenge responses.

Previous research explains that asking questions about positively viewed behaviors (i.e., flossing the teeth) increases those behaviors, while asking questions about negatively viewed behaviors (i.e., using drugs or smoking) decreases these behaviors (Fitzsimons & Moore, 2008; Levav & Fitzsimons, 2006). Applying the same logic to the service failure context, the current research posits that a “mere-measurement effect” may influence the effects of time on the cognitions and emotions associated with the revenge process. The examination of this issue is important, so we better understand the true effect of time because it has been regularly confounded with a mere-measurement effect. Although a mere-measurement effect seems likely in this context, its direction is uncertain as two rival explanations can be argued: the amplification effects vs. catharsis effects. In the following, we elaborate on these two rival explanations.

#### **2.3.4.1. Catharsis effects of mere-measurement over time**

Catharsis literally means “a cleansing or purging” that is rooted in Aristotle's poetry, and a cathartic healing effect was believed to be beneficial to both the individual and the society (Wegman, 1985). This effect refers to an extreme emotional purification that occurs following the experience of strong feelings of sorrow, fear or pity (Bushman, Baumeister, & Stack, 1999; Wegman, 1985). According to this effect, watching aggression or acting aggressively is healthy while repressing those negative emotions are unhealthy and cause psychological harm such as phobias or hysterias (Bushman et al., 1999; Geen & Quanty, 1977). Because answering a survey could allow individuals to purge their negative emotions and express their negative thoughts (Barclay & Skarlicki, 2009),

we can assume that answering a series of surveys could have a catharsis effect.

#### **2.3.4.2. Amplification effects of mere-measurement over time**

An alternative, darker scenario can also be proposed: an amplification effect of mere-measurement. Based on this scenario, answering questions about an unfair experience may lead customers to re-experience the unfair service experience over time (Chandon et al., 2011; Fitzsimons & Morwitz, 1996; Smith et al., 2003). So, the questionnaire may reinforce self-focused attention on the negative mood, and enhance customer rumination. Previous research focuses on the harmful effects of negative mood and rumination on individual's psychological and physiological well-being (Bono et al., 2008; McCullough et al., 2001, 2007). Accordingly, re-experiencing an unfair service experience through a questionnaire could sustain customer revenge responses. Sending surveys may crystallize customer intentions for future revenge behavior and motivate them to hold their revenge for a longer period of time. These customers could have a stronger tendency to hold their vengeful thoughts and emotions over a longer period than the individuals who did not answer any survey.

As the first contribution of this research, we believe that there is more evidence to identify the catharsis effect of mere-measurement over time on the revenge responses rather than amplification effect. First, because revenge not only requires a high level of energy and effort to sustain (Grégoire et al., 2009) but also is costly without any promise of future gains (Bechwati & Morrin, 2003; Grégoire et al., 2009). Thus, aggrieved customers cannot maintain a high level of revenge for a long time.

Second, answering surveys allows aggrieved customers to reorganize their thoughts to gain insight and resolve the situation (Pennebaker, 1997; Smyth, True, & Souto, 2001). In other words, answering surveys gives aggrieved customers the opportunity to confront the situation with lesser anxiety and anger over time. Sending a series of questionnaires creates a form of constructive exposition and

habituation to the service experience, which is beneficial for the customers. Moreover, it helps them to express their negative emotions rather than inhibiting those feelings (Barclay & Skarlicki, 2009). Here, inhibition of negative emotions is associated with a high level of rumination and psychological distress, which has negative consequences on one's psychological well-being. In addition, by answering questions about a service failure, customers are in a better position to understand and make sense of the service failure. These questionnaires provide an opportunity to restructure and reorganize the service failure in a more constructive manner in their minds.

More importantly, previous longitudinal research of McCullough and his colleagues (e.g., Bono et al., 2008; McCullough et al., 2007, 2003; McCullough, Kurzban, et al., 2010) confirms that revenge is short-lived and reduces over time which is also consistent with the catharsis effect concept.

## **2.4. Hypotheses**

Drawing on the revenge process, this research considers customers' inferred negative motives as a cognitive construct, and perceived betrayal as a cognitive construct that also has an emotional aspect. We choose anger as an emotional construct; desire for revenge, and vindictive behavior and NWOM as revenge behaviors. These constructs reflect the process of the revenge in cognition, emotion, desire and behavior forms.

*Inferred negative motives.* Inferred negative motives is defined as the extent to which a customer believes a firm intended the service failure to maximize its own benefits and take advantage of the situation to make a profit (Crossley, 2009; Reeder et al., 2002). A customer's inference of such negative motives of a firm leads him to experience feelings of betrayal, which in turn triggers his anger, and motivates him to make the firm pays for the mishaps (Aquino et al., 2006; Grégoire et al., 2010). Drawing on cognitive-appraisal theories of emotion, we can argue that inferred negative motives constitute a cognitive appraisal (Lazarus, 1991). As

the catharsis effect basically refers to an extreme emotional purification (Wegman, 1985), we do not expect much catharsis effect on a cognitive variable such as inferred negative motives. Moreover, cognitions are difficult to forget as they are typically taking a high level of mental efforts to form. In other words, once an inference of negative motives is rooted in a customer's mind and becomes a conscious belief, it is unlikely to change even if the customer answers a series of questions about them. Hence, customers' cognitions such as inferred negative motives are probably relatively stable over time and we would not expect to see too much of neither a catharsis effect nor an amplification effect. So, formally we suggest:

**H1a:** Customers' cognition such as inferred negative motives is fairly stable over time, regardless of the mere-measurement effect.

Applying the same logic regarding the opportunity of answering multiple questionnaires over time, we propose:

**H1b:** Customers' cognition such as inferred negative motives is fairly stable over time, even if they have the opportunity to respond to multiple questionnaires, compared with answering only one survey.

*Perceived Betrayal.* As stated in its definition—violation of trust in personal relationship (Jones & Burdette, 1994)—betrayal is experienced within the context of a relationship that distinguishes it from dissatisfaction and anger (Bougie et al., 2003; Smith et al., 1999). While dissatisfaction relies on expectation disconfirmation (Oliver, 2010), betrayal involves the formation of clear cognitions related to the violation of trust in a relationship (Elangovan & Shapiro, 1998). In that regard betrayal is cognitive in essence. However, this extreme cognition has also an emotional dimension, as its close association with the emotion of anger indicates. This sense of betrayal which is difficult to let go, is likely to enhance customers' feeling of anger and consequently involves them in keeping grudge toward the service provider (Bies & Tripp, 1996; Grégoire et al., 2009). So, consumer context we consider betrayal as a cognitive component with an

emotional aspect. On the one hand, it involves cognitions when customers perceive that a firm intentionally violates the norm of their relationships. On the other hand, it involves a negative emotional aspect that will lead to anger. We can argue that answering multiple surveys allows customers to express their negative feelings of betrayal and will consequently reduce those negative feelings. However, compared to anger it is more difficult to reduce the cognitive component of the customer's perceived betrayal since this aspect of betrayal is rooted in a customers' mind and forms their beliefs. Hence:

**H2a:** Customers' emotional aspect of betrayal decreases when they have the opportunity to respond to a questionnaire, while the cognitive aspect of betrayal is fairly stable over time and regardless of the mere-measurement.

Using the same logic, we argue that:

**H2b:** Customers' emotional aspect of betrayal decreases when they have the opportunity to respond to multiple questionnaires, compared with answering only one questionnaire.

*Anger.* Numerous studies have examined the relationship between customers' cognitive appraisal and negative emotional responses to a service failure and a poor recovery (Bonifield & Cole, 2007; Bougie et al., 2003; Smith et al., 1999). Drawing on cognitive-appraisal theories of emotion, different appraisal patterns arouse different emotions (Lerner & Keltner, 2001; Smith & Ellsworth, 1985). Anger refers to an impulse strong negative emotion to react and respond to the source of anger (Bougie et al., 2003; McColl-Kennedy et al., 2009). Anger as an extreme negative emotion is a result of service failure when cognitive appraisal happens (Nguyen & McColl-Kennedy, 2003). When individuals answer multiple surveys regarding an unfair service experience, they have the opportunity to express and vent their negative emotions, specifically their anger. Prior research shows that expressing inhibited emotions such as anger leads to improve physical and psychological well-being (Pennebaker & Beall, 1986; Pennebaker, 1989, 1997). Drawing on the catharsis healing effect of mere-measurement, we expect



that customers' anger reduce more quickly over time. We made this prediction because answering multiple surveys over time can facilitate the venting of negative emotions as it also reduces physical and psychological illnesses (Barclay & Skarlicki, 2009). In other words, we predict that answering multiple questionnaires regarding an unfair service experience allows aggrieved customers to express their inhibited negative emotions (e.g., anger) and consequently reduce the negative emotions. This logic is aligned with prior research that suggests disclosing thoughts and feelings improves physical and psychological well-being (Pennebaker & Beall, 1986; Pennebaker, 1997; Smyth, Stone, Hurewitz, & Kaell, 1999). Thus:

**H3a:** Customers' negative emotion, such as anger, decreases when they have the opportunity to respond to a questionnaire.

**H3b:** Customers' negative emotion, such as anger, decreases more when they have the opportunity to respond to multiple questionnaires, compared with answering only one questionnaire.

*Desire for Revenge.* Previous research on the mere-measurement effect has not considered desire for revenge as an outcome variable. However, desire for revenge can be particularly relevant to the context of service failure and the effect of mere-measurement over time because revenge is a general reaction to unfair service experiences (Grégoire et al., 2010, 2009). Drawing on the catharsis healing effect, we argue that answering a survey over time lets customers to express their negative thoughts and feelings of revenge toward the service provider. Thus, we assume that the desire for revenge of those customers who have the opportunity to answer a survey regarding an unfair service experience reduces more quickly over time.

**H4a:** Customers' desire for revenge decreases when they have the opportunity to respond to a questionnaire.

In accordance with the catharsis "calming effect" of answering a questionnaire, we expect that responding multiple questionnaires reduces hostile

thoughts, emotions and behaviors to a greater extent, compared to responding to only one questionnaire. Hence:

**H4b:** Customers' desire for revenge decreases more when they have the opportunity to respond to multiple questionnaires, compared with answering only one questionnaire.

*Vindictive behavior.* Customers' desire for revenge can lead customer to be involved in retaliatory behaviors and "make a firm pay" for what happened. Customers' retaliatory behaviors can range from direct physical acts of vindictive behaviors toward the service firms (e.g., verbal confrontations with the firms' staffs, or consumers making a public scene) to indirect actions (e.g., NWOM, exit or switch to an alternative brand) (Harris & Reynolds, 2004; Hibbard et al., 2001; Singh, 1988). Customer's vindictive behaviors refers to customer's efforts to cause damage and inconvenience for a firm to obtain revenge or get even with the firm (Harris & Reynolds, 2004; Van Vliet, 1984).

*Negative Word-of-Mouth.* Many scholars refer to NWOM as a form of retaliation. Negative word-of-mouth which is a form of indirect retaliation refers to any form of customer efforts to blemish a firm to their family and friends and motivate them to stop patronizing the firm.

In accordance with the revenge process, we assume that since answering a survey over time has a catharsis effect and reduces customers' desire for revenge, customers will have fewer tendencies to engage in vindictive behavior and NWOM. Thus we propose:

**H5a:** Customers' vindictive behavior decreases when they have the opportunity to respond to a questionnaire.

**H5b:** Customers' vindictive behavior decreases more when they have the opportunity to respond to multiple questionnaires, compared with answering only one questionnaire.

Moreover:

**H6a:** Customers' NWOM decreases when they have the opportunity to respond to a questionnaire.

**H6b:** Customers' NWOM decreases more when they have the opportunity to respond to multiple questionnaires, compared with answering only one questionnaire.

## **2.5. A longitudinal field experiment**

### **2.5.1. Research Context: ConsumerAffairs.com**

Aggrieved customers can choose different ways to broadcast their complaints. They may voice their complaints either via personal webpage or through an online third party organization or social media. This research examines the complaints formulated to a third party website "ConsumerAffairs.com". This website is an independent consumer news center founded in 1998 that has millions of consumers mostly from the United States and Canada.

### **2.5.2. Procedure and Sample**

The hypotheses are tested with a longitudinal field experiment that was performed in collaboration with an online third party organization, ConsumerAffairs.com, over 60-days. The research involved two conditions. The first condition involved series of four questionnaires that were administered every two weeks over two months. In order to reduce memory bias, we sent the first series of questionnaires after passing ten days from the time that customers sent their online complaint. The second condition involved a single survey that was sent only at the end of two months.

The sampling frames were composed of 1424 and 477 (75% and 25%) complainers for the first and second condition respectively. Respondents were randomly assigned to one of the two conditions and were reminded twice to fill out the questionnaire before each wave of the study. Respondents were asked to

complete the survey via Qualtrics.com.

In the first condition, 250 respondents completed the first wave, for a 17.6% overall respondent rate. 173 respondents completed the second wave and 129 respondents participated in the third wave of the study. The number of respondents who completed the four questionnaires decreased to 111 by wave 4. The respondents of this sample were included in a draw for one grand prize of \$500 and ten prizes of \$50. In the second condition, 56 respondents completed the survey for a 22.4% response rate. These respondents were included in a draw with two prizes of \$50. The levels of response rates in both conditions are comparable to those reported in similar research (Grégoire et al., 2010, 2009).

### **2.5.3. Questionnaire and Measurement**

The questionnaire was about service failures that led the aggrieved customers to complain to ConsumerAffairs.com. The service failures refer to any situation in which a service firm failed to serve customers adequately and to redress the situation.

In the first wave of the first condition, the questionnaire includes five parts: a) description of the failure; b) the relationship with the service provider before the failure; c) customers' thoughts, feelings and responses regarding the service failure that respondents experienced at the time of the service failure; d) customers' thoughts, feelings and responses that followed the service failure; e) personal information. The first questionnaire took approximately twenty minutes to complete. The respondents answered questions related to negative motives, betrayal, negative emotions, desires, retaliatory behaviors and severity of the service failure. In wave 2-4, the respondents answered a shorter questionnaire that took six minutes to complete with fewer measures related to their current thoughts, emotions, desires and behaviors. Questionnaires at wave 2-4 include five parts with fewer questions compared to the first one: a) description of the failure; b) respondents relationship with the service provider at the current moment that they

fill out the questionnaires; c) customers' thoughts, feelings and responses regarding the service failure at the current moment; d) customers' thoughts, feelings and actions they took after the service failure in the past two weeks; e) personal information. The measures are influenced by or adapted from previous work. Unless otherwise noted, the measures are based on seven-point Likert scales (1= "strongly disagree" and 7= "strongly agree"). The scale items (after purification) appear in the appendix. We conducted an Exploratory Factor Analysis (EFA) on items using principal components for each wave of time.

*Inferred negative motives.* Inferred negative motives is measured with a four-item scale, including "I believe that the service firm had a bad intention" (see the Appendix). We identified and removed three items in waves 2-4, with poor psychometric proprieties (i.e., loadings<.50, cross-loadings>.30).

*Perceived betrayal.* This construct is measured with an established six-item scale adapted from (Grégoire & Fisher, 2008). These scales include items such as "the firm broke the promise made to me" (see the Appendix). The results of the four exploratory factor analyses for each wave of time clarify that the items related to the perceived betrayal are strongly loaded on their respective factor at each time. From wave 1 to wave 4, the loadings were between .634 and .863 and the Cronbach's alphas were greater than .88 (see the Appendix).

*Anger.* Anger is measured with an established five-item scale adapted from Richins (1997). These scales included item such as "Thinking about the service failure, at the current moment I feel angry". Respondents indicate their answer on a seven point scale ranging from "strongly disagree" to "strongly agree" (see the Appendix). We performed four exploratory factor analyses, one for each wave of time. Overall, the items strongly loaded on the respective factor at each time. In all four waves of time, the loadings were between .727 and .882 and the Cronbach's alphas were greater than .93 (see the Appendix).

*Desire for revenge.* The scale are adapted to a consumer context that are developed by McCullough and colleagues (see Liu & McClure, 2001; McCullough

et al., 1998, 2007). Customer “desire for revenge” is measured with an established five-item scale (Grégoire et al., 2009) including “I want to take actions to get the firm in trouble”. In terms of face validity, the desire for revenge scale is consistent with the positive items of the vengeance scale developed by Bechwati and Morrin (2003). We performed four exploratory factor analyses, one for each wave of time. Overall, the items strongly loaded on the respective factor at each time. In all four waves of time, the loadings were between .763 and .946 and the Cronbach’s alphas were greater than .94 (see the Appendix).

*Vindictive behaviors.* Customer vindictive behaviors is measured with a four-item scale influenced by previous empirical work in the service literature (Van Vliet, 1984). These scales included item such as “I complain to the service firm to say rude things to the frontline employees”. The results of the four exploratory factor analyses for each wave of time clarify that the items related to the vindictive behaviors are strongly loaded on their respective factor at each time. In all four waves of time, the loadings were between .696 and .907 and the Cronbach’s alphas were greater than .85 (see the Appendix).

*Negative word-of-mouth.* Customer NWOM as a form of consumer retaliatory behavior is measured by a three-item scale adapted from Maxham and Netemeyer (2002) including “when my friends were looking for a similar product or service, I told them not to buy from this firm”. Respondents indicate their answer on a seven point scale ranging from “strongly disagree” to “strongly agree” (see the Appendix). We performed four exploratory factor analyses, one for each wave of time. Overall, the items strongly loaded on the respective factor at each time. In all four waves of time, the loadings were between .799 and .908 and the Cronbach’s alphas were greater than .85 (see the appendix).

*Control variables.* We also controlled perceived severity of the service failure (Smith et al., 1999) that could affect the revenge process, and this effect was significant in each of the four waves ( $p$ ’s < .001).

#### **2.5.4. Confirmatory Factor Analyses (CFAs)**

Four CFAs models are performed, one for each wave of time. Our first model that was presented for the wave 1, included inferred negative motives (4 items), perceived betrayal (6 items), anger (5 items), desire for revenge (5 items), vindictive behavior (4 items), NWOM (3 items) and failure severity (3 items). The 30-item model produced a satisfactory fit with a comparative fit index (CFI) of .94, a Tucker-Lewis index (TLI) of .93, incremental fit index (IFI) of .94, a root mean square error of approximation (RMSEA) of .06, and a chi-square of 729.53 (d.f. = 384,  $P < .001$ ). In this model the loadings were large and significant ( $p < .001$ ), the average variance extracted (AVEs) were greater than .50 for all constructs (see the Appendix).

The second CFA model of wave 2 included perceived betrayal (6 items), anger (4 items), desire for revenge (5 items), vindictive behavior (4 items), NWOM (3 items). The model produced a satisfactory fit with a comparative fit index (CFI) of .94, a Tucker-Lewis index (TLI) of .93, incremental fit index (IFI) of .94, a root mean square error of approximation (RMSEA) of .09, and a chi-square of 337.11 (d.f. = 127,  $P < .001$ ). In this model the loadings were large and significant ( $p < .001$ ), the average variance extracted (AVEs) were greater than .60 for all constructs (see the Appendix).

The third CFA model of wave 3 produced a satisfactory fit with a comparative fit index (CFI) of .96, a Tucker-Lewis index (TLI) of .95, incremental fit index (IFI) of .96, a root mean square error of approximation (RMSEA) of .06, and a chi-square of 297.22 (d.f. = 197,  $P < .001$ ). In this model the loadings were large and significant ( $p < .001$ ), the average variance extracted (AVEs) were greater than .60 for all constructs (see the Appendix).

The last model that was represented for the wave 4 also produced a satisfactory fit with a comparative fit index (CFI) of .95, a Tucker-Lewis index (TLI) of .94, incremental fit index (IFI) of .95, a root mean square error of

approximation (RMSEA) of .06, and a chi-square of 304.82 (d.f.=198,  $P < .001$ ). In this model the loadings were large and significant ( $p < .001$ ), the average variance extracted (AVEs) were greater than .60 for all constructs (see the Appendix).

#### **2.5.5. Self-selection bias**

To control for the possibility of a self-selection bias, we verified that the respondents in both conditions experience a similar service situation at wave 4. To do so, we asked the participants in both groups at wave 4 the three following questions: 1) whether they received a satisfactory resolution since they complained; 2) whether they gave up on having the service failure resolve to their satisfaction since they complained; and 3) how many times they have interacted with the firm since they complained. Overall, the same proportions of participants in both conditions received a similar level of satisfactory resolution at wave 4 (condition “one survey at wave 4”= 23.2%  $\approx$  condition “four surveys over time”=20.4%; chi-square=.18;  $p=.67$ ); the same proportions gave up the idea of resolving the problem (“one survey at wave 4”=48.2%  $\approx$  “four surveys over time”=51.3%; chi-square=.15;  $p=.70$ ); and both conditions reported the same number of interactions with the firms since their online complaints (“one survey at wave 4”=2.92  $\approx$  “four surveys over time”=2.84;  $F=.004$ ;  $p=.95$ ). These comparisons suggest the complainers in both conditions experienced a comparable service failure situation at wave 4. Their differences in responses could not be explained by the fact that one group received more resolution than the others; that one subgroup gave up finding a resolution; or that one subgroup was more active than the other in interacting with the firm.

We also performed a Heckman selection model (Heckman, 1979) to formally test for a potential self-selection bias. Gender, age and perceived severity of the service were used as predictors in the selection equation. Four models were tested with the outcomes of interest in the second equation: inferred negative



motives, betrayal, anger and desire for revenge. All correlation estimates (i.e.,  $\rho$ ) were insignificant ( $p > .50$ ); further suggesting that self-selection bias is not an issue in the estimation of consumer reactions in this research.

Overall, these analyses give us confidence that the differences in thoughts and emotions are explained by the measurement treatment rather than a potential self-selection bias related to the service failure situation or the complainers.

#### **2.5.6. Attrition in the first condition: Missing at Random**

In the first condition, we confirmed through a series of mean comparisons that the respondents who did not complete all the waves did not differ from the respondents who completed the four waves on the key variables of interest: such as inferred negative motives-wave 1 ( $M_{\text{three-waves-or-less}} = 5.74 \approx M_{\text{all-waves}} = 5.47$ ;  $F[1, 248] = 1.66$ ;  $p = .20$ ), betrayal- wave 1 ( $M_{\text{three-waves-or-less}} = 6.19 \approx M_{\text{all-waves}} = 6.04$ ;  $F[1, 248] = .79$ ;  $p = .38$ ), anger- wave 1 ( $M_{\text{three-waves-or-less}} = 5.57 \approx M_{\text{all-waves}} = 5.59$ ;  $F[1, 248] = .01$ ;  $p = .95$ ), and desire for revenge- wave 1 ( $M_{\text{three-waves-or-less}} = 3.66 \approx M_{\text{all-waves}} = 3.41$ ;  $F[1, 248] = .81$ ;  $p = .37$ ). In addition, we found that a similar proportion of these two groups did not have their service failure resolved to their satisfaction at wave 2 (“three waves or less”=20.3%  $\approx$  “all waves completed”= 18.0%; chi-square=.14;  $p = .71$ ) and wave 3 (“three waves or less”=27.3%  $\approx$  “all waves completed”=24.1%; chi-square=.10;  $p = .75$ ). The equivalence of these two groups suggests that data were missing completely at random and the longitudinal data remained unbiased by attrition in the first experimental condition (McCullough et al., 2001).

### **2.6. Results**

A series of repeated measure regression models was used to test the hypotheses. The maximum likelihood estimation method is specified for its capacity to deal with missing at random data points in an unbiased fashion (Fitzmaurice, Laird, & James, 2004). An unstructured variance-covariance matrix

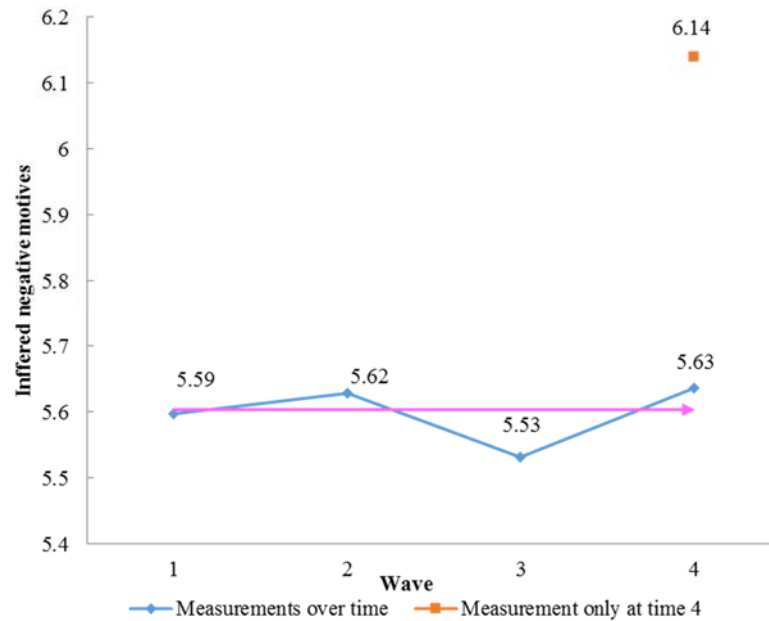
is assumed in that it allows more flexibility in the model. For the analyses, we employed the MIXED procedure from SAS 9.2 statistical package. Our key results are presented in Figure 2-2 to Figure 2-7. For each construct, we first considered the measurement over time condition (and not the measurement only at wave 4). Then, we analyzed the evolution of each construct in the first condition by specifying a linear or a quadratic term for the time variable. As we continued, we integrated the mere-measurement only at wave 4 condition in order to understand the effect of answering multiple questionnaires over time. In all of the models presented below, severity was considered as a control variable. The parameters for severity were all significant (all  $F_s [1, 303] > 5.45$ ; all  $P_s < .001$ ). However, severity did not affect the strength of the other parameters.

*H1.* To test H1, first we analyzed the evolution of inferred negative motives in the first condition that comprises four waves of mere-measurement over time by specifying a linear and quadratic term for the time variable. The results show that there is neither a significant linear trend ( $t [248] = .16$ ;  $p > .87$ ) nor a quadratic ( $t [248] = .77$ ;  $p > .44$ ) decrease for inferred negative motives over time. This result which is consistent with H1a indicates that the construct is fairly stable and that there is no catharsis effect of mere-measurement on inferred negative motives over time (see Figure 2-2).

In order to test H1b, the measurement only condition at wave 4 was integrated into the model. Consistent with H1b, the inferred negative motives of the respondents who answered only one questionnaire at the end of two months is significantly higher compared with those who answered multiple questionnaires over four waves of time ( $M_{\text{only-one-survey}} = 6.14 > M_{\text{surveys-over-time}} = 5.63$ ;  $t[303] = 2.08$ ;  $p < .03$ ) in the other condition. Moreover, the inferred negative motives of the respondents who answered only one questionnaire at the end of two months is significantly higher compared with those who received a questionnaire at wave 1 ( $M_{\text{only-one-survey}} = 6.14 > M_{\text{survey-at-wave1}} = 5.59$ ;  $t [303] = 2.34$ ;  $p < .01$ ) in the other

condition.

**Figure 2-2. The effects of mere-measurement on inferred negative motives over time**

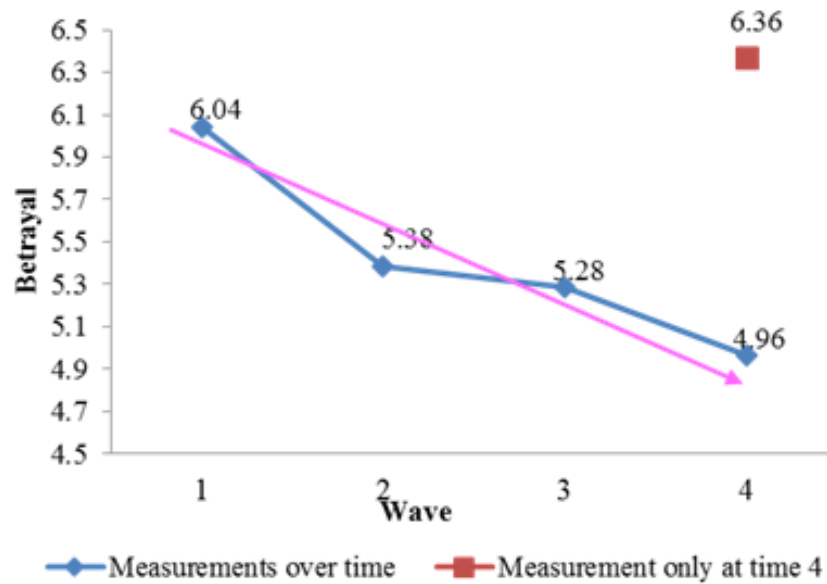


*H2.* Figure 2-3 presents the tests for H2. The first analysis which integrates solely the mere-measurement over time condition revealed that there is a significant linear ( $t[248] = -6.91$ ;  $p < .0001$ ) decrease for betrayal over time. This result which is consistent with H2a and a catharsis effect indicates that customers' perceived betrayal decreases following a linear trend over time. However, the results show that there is no significant quadratic ( $t[248] = 1.56$ ;  $p > .10$ ) decrease for betrayal over time.

In order to better understand the linear trend, we then compared the differences in the perceived betrayal between each wave of the first condition. The perceived betrayal at wave 1 is significantly different from all the other means (for all  $t$ 's  $[301] > 4.96$ ;  $p < .0001$ ). We observed similar results for the construct at wave 2, 3 and 4 (for all  $t$ 's  $[301] > 2.44$ ;  $p < .001$ ) except between wave 2 and 3 that was not significant ( $t[301] > .89$ ;  $p = .37$ ).

We then consider the mere-measurement only at time 4 condition into the model. Consistent with H2b, the perceived betrayal of the customers who answered multiple questionnaires over two months is significantly lower than those who answered only one questionnaire at the end of two months ( $M_{\text{surveys-over-time}} = 4.96 < M_{\text{only-one-survey}} = 6.63$ ;  $t[301] = 4.98$ ;  $p < .0001$ ). Moreover, there is no significant difference between the perceived betrayal of the respondents who answered only one questionnaire at the end of two months and those who received a questionnaire at wave 1 ( $t[301] = 1.27$ ;  $p > .20$ ) in the other condition (see Figure 2-3).

**Figure 2-3. The effects of mere-measurement on perceived betrayal over time**



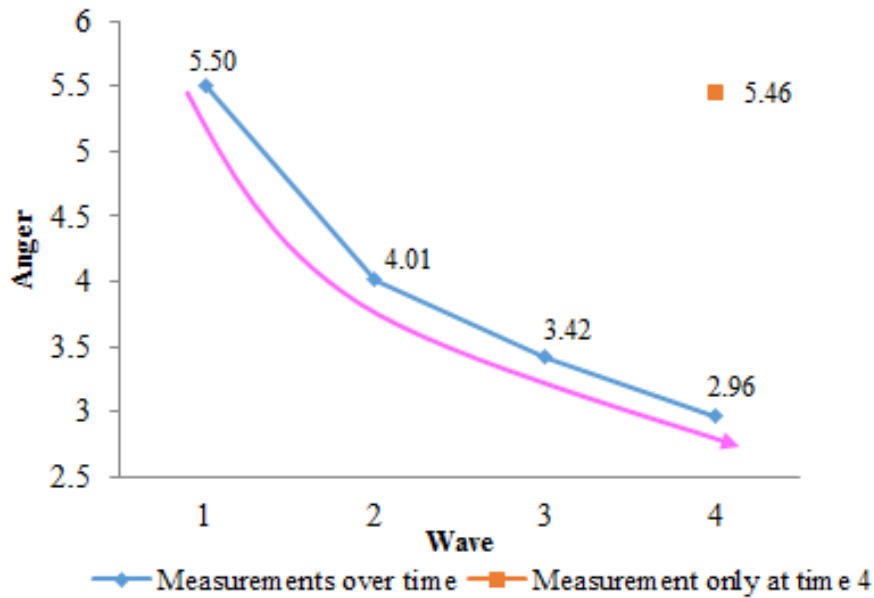
*H3.* Analyzing the evolution of customer anger in the first condition revealed that there is a significant linear trend ( $t[248] = -15.09$ ;  $p < .0001$ ) and a quadratic ( $t[248] = 4.66$ ;  $p < .0001$ ) decrease for customer anger over time. These results indicate that in support of H3a there is a catharsis effect of mere-measurement over time. In other words, the more mere-measurement we administered the greater is the decline of customer's anger.

We then compared the differences in the anger between each wave of the first condition. The anger at wave 1 is significantly different from all the other

means (for all  $t$ 's [300] > 10.21;  $p < .0001$ ). We observed similar results for the construct at wave 2, 3 and 4 (for all  $t$ 's [300] > 3.07;  $p < .0001$ ). The result revealed that the steepest decrease was noted after answering the first questionnaire (see Figure 2-4).

Considering the mere-measurement only at time 4 condition, H3b is supported. The results revealed that there is no significant difference between the anger of customers who answered only one questionnaire at the end of two months and those who received a questionnaire at wave 1 ( $M_{\text{only-one-survey}} = 5.46$ ;  $M_{\text{survey-at-wave1}} = 5.50$ ;  $t[300] = .16$ ;  $p = .87$ ) in the other condition. On the other hand, the result revealed that the anger of the respondents who answered only one questionnaire at the end of two months is significantly higher compared with those who received a questionnaire at waves 2, 3 and 4 ( $M_{\text{only-one-survey}} = 5.46 > M_{\text{surveys-over-time}} = 2.96$ ;  $t[300] > 4.71$ ;  $p < .0001$ ) in the other condition.

**Figure 2-4. The effects of mere-measurement on anger over time**

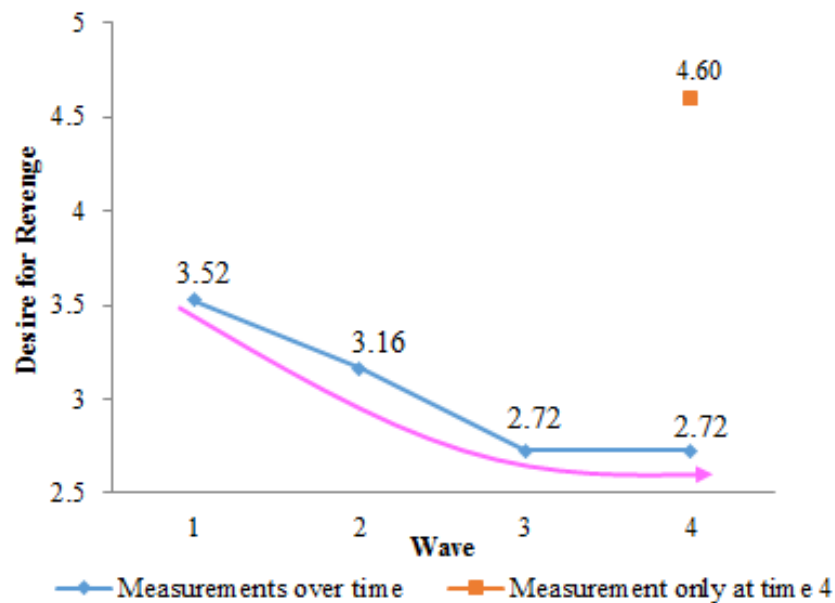


*H4.* The first analysis integrates solely the mere-measurement over time condition (and not the mere-measurement only at time 4). We analyzed the evolution of a desire for revenge in the first condition that comprises four waves

of mere-measurement over time by specifying a linear and quadratic term for the time variable. Overall, there is a significant linear effect ( $t [248] = -4.76; p < .0001$ ) and quadratic effect ( $t [248] = 2.55; p < .01$ ), which indicates that a desire for revenge decreases following a non-linear quadratic trend over time. This result is consistent with H4a and a catharsis effect that indicates that the more mere-measurement we administered, the greater is the decline of desire for revenge.

In order to better understand the quadratic trend, we then compared the differences in the desire for revenge between each wave of the first condition. The desire for revenge at wave 1 is significantly different from all the other means (for all  $t$ 's  $[297] > 2.62; p < .001$ ). We observed similar results for the construct at wave 2 (for all  $t$ 's  $[297] > 3.31; p < .001$ ). However, the result between wave 3 and wave 4 are not significant ( $t [297] = .00; p > .999$ ), which suggests that a desire for revenge stabilizes after answering three surveys in six weeks. This result revealed that the steepest decrease was noted after answering the first questionnaire (see Figure 2-5).

**Figure 2-5. The effects of mere-measurement on desire for revenge over time**



In a second set of analyses to test H4b, the mere-measurement only at time

4 condition was integrated into the model. Consistent with H4b, the desire for revenge of the customers who answered multiple questionnaires over the two months is significantly lower than those who answered only one questionnaire at the end of two months ( $M_{\text{surveys-over-time}} = 2.72 < M_{\text{only-one-survey}} = 4.60$ ;  $t[297] = -5.62$ ;  $p < .0001$ ). Moreover, the desire for revenge of the respondents who answered only one questionnaire at the end of two months is significantly higher compared with those who received a questionnaire at wave 1 ( $M_{\text{only-one-survey}} = 4.60 > M_{\text{survey-at-wave1}} = 3.52$ ;  $t[297] = -3.30$ ;  $p < .001$ ) in the other condition (i.e., four measurements over time).

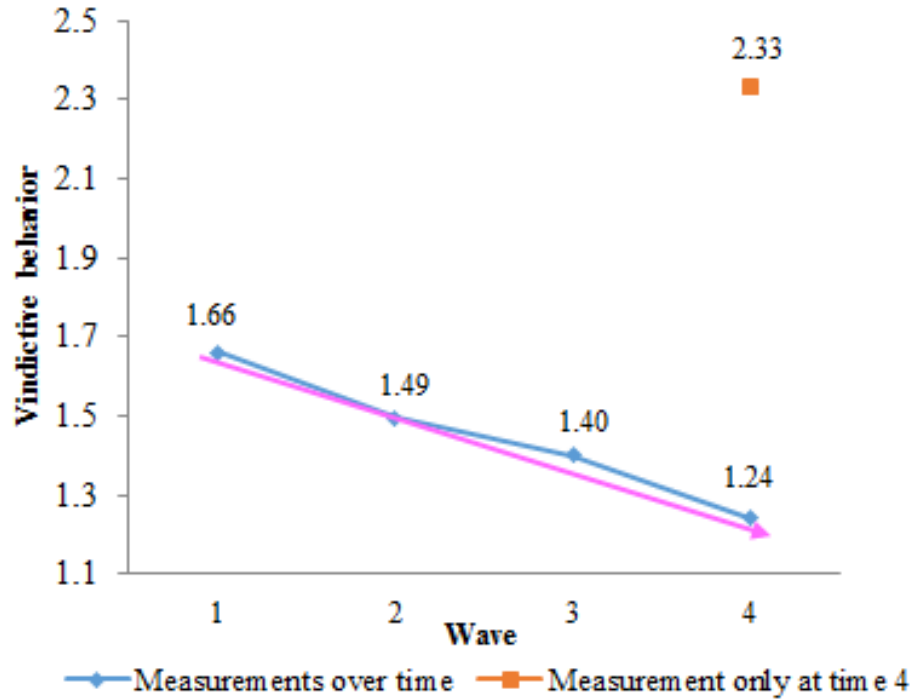
*H5.* First, we only analyzed the evolution of vindictive behavior construct in a mere-measurement over time condition (and not the mere-measurement only at time 4) by specifying a linear and quadratic term for the time variable. The results indicate that mere-measurement has a significant decreasing linear trend ( $t[248] = -6.24$ ;  $p < .0001$ ) for the customers' vindictive behaviors over time, in support of H5a. Although the results show a catharsis effect of mere-measurement over time on the vindictive behavior, there is no significant quadratic ( $t[248] = .01$ ;  $p > .98$ ) decrease for construct over time (see Figure 2-6).

In order to better understand the linear trend, we then compared the differences in the vindictive behavior between each wave of the first condition. The results revealed that the mean of the customers' vindictive behaviors at wave 1 is not significantly different from the means of the construct at wave 2 ( $t[292] = 1.60$ ;  $p = .11$ ). We also observed similar results for the construct comparing the means between wave 2 and wave 3 ( $t[292] = .88$ ;  $p = .37$ ).

We then consider the mere-measurement only at time 4 condition into the model. Consistent with H5b, the vindictive behaviors of the respondents who answered multiple questionnaires over the two months is significantly lower than those who answered only one questionnaire at the end of two months ( $M_{\text{surveys-over-time}} = 1.24 < M_{\text{only-one-survey}} = 2.33$ ;  $t[292] = 3.43$ ;  $p < .0007$ ). Moreover, there is no significant difference between the vindictive behaviors of the customers who

answered only one questionnaire at the end of two months and those who received a questionnaire at wave 1 ( $M_{\text{only-one-survey}} = 2.33$ ;  $M_{\text{survey-at-wave1}} = 1.66$ ;  $t[292]=1.60$ ;  $p>.11$ ) in the other condition.

**Figure 2-6. The effects of mere-measurement on vindictive behavior over time**



*H6.* The first analysis integrate solely the mere-measurement over time condition. We analyzed the evolution of a NWOM in the first condition by specifying a linear and quadratic term for the time variable. The results revealed that there is a significant linear effect ( $t [248] = -5.72$ ;  $p<.0001$ ) which is in consistent with H6a and the catharsis effect indicates that a NWOM decreases following a linear trend over time. However, the results show that there is no significant quadratic ( $t [248] = 1.56$ ;  $p>.119$ ) decrease for NWOM over time (see Figure 2-7).

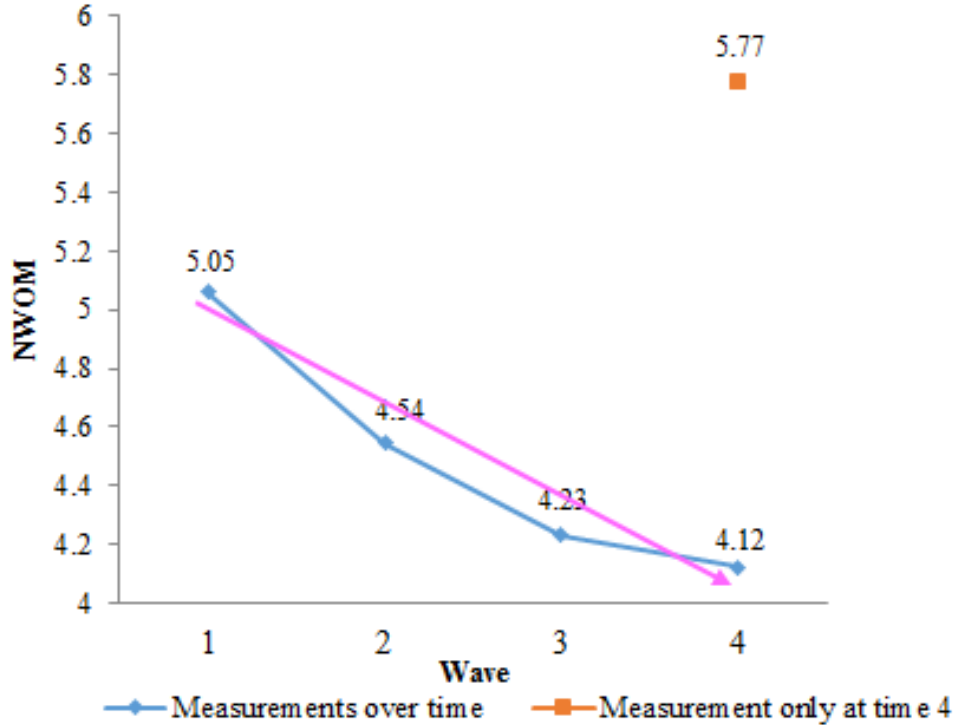
In order to better understand the linear trend, we then compared the differences of NWOM between each wave of the first condition. The results



revealed that except for the means of NWOM between wave 3 and 4 ( $t [297] = .74$ ;  $p > .46$ ), all the other means of the construct are significantly different (for all  $t$ 's  $[297] > 1.96$ ;  $p < .05$ ). These results confirm that answering questionnaires over time reduce customer's NWOM.

In order to test H6b, we integrate the mere-measurement only at time 4 condition into the model. Consistent with H6b, the NWOM of the customers who answered multiple questionnaires over the two months is significantly lower than those who answered only one questionnaire at the end of two months ( $M_{\text{surveys-over-time}} = 4.12 < M_{\text{only-one-survey}} = 5.77$ ;  $t[297] = 4.46$ ;  $p < .0001$ ). Moreover, the NWOM of the respondents who answered only one questionnaire at the end of two months is significantly higher compared with those who received a questionnaire at wave 1 ( $M_{\text{only-one-survey}} = 5.77 > M_{\text{survey-at-wave1}} = 5.05$ ;  $t [297] = 2.08$ ;  $p < .038$ ) in the other condition (i.e., four measurements over time).

**Figure 2-7. The effects of mere-measurement on NWOM over time**



The results of the present research also revealed that mere-measurement

over time affects the revenge process given the cognitive or emotional nature of the variables. Time has little influence and does not attenuate the intensity of cognitive variables (e.g., inferred negative motives), regardless of the presence or absence of a mere-measurement effect. As time passes, most customers preserve the same inference of a firm's negative motive, and their perception is not affected by answering any questionnaire. However, answering multiple questionnaires over time has a strong catharsis effect following a nonlinear pattern on emotional variables (e.g., anger and desire for revenge). The effect of time on these variables is greatly amplified when the respondents have an opportunity to answer multiple questionnaires, and the steepest decrease was noted after answering the first questionnaire.

## **2.7. General discussion**

This research examines the effects of time on revenge responses by accounting for a longitudinal mere-measurement effect. Data collected in the context of online customer revenge provided support for our hypotheses. The key contribution of this research is to demonstrate that the reducing effect of time on revenge responses — a “time heals all wounds” effect — is contingent on the number of completed surveys, and on the cognitions vs. emotions nature of the responses.

### **2.7.1. The catharsis effect of completing a series of questionnaires**

To understand the longitudinal mere-measurement effect, we compared the responses of online complainers assigned to two conditions: completion of four questionnaires vs. only one questionnaire for the same two month period. The key difference between these conditions is the number of mere-measurements; the online complainers in both conditions were facing an equivalent service failure situation after two months. Our findings generally support the presence of a catharsis effect, rather than an amplification effect. The levels of betrayal, anger and desire for revenge, NWOM and vindictive behavior were significantly lower when the respondents completed four surveys, compared to only one survey. The

only exception was for inferred negative motive for which we did not note any difference across conditions. These results give us confidence that answering multiple questionnaires over time differently influence customer's cognitions and emotions. Although perceived betrayal tends to be associated with anger (the correlations between these constructs vary between .31 and .45), the former has been clearly defined and measured as a cognitive variable (Grégoire et al., 2009). In the current research, customer cognitions (e.g., inferred negative motives, perceived betrayal) tend to be fairly stable or reduce in a mild linear trend over time.

Why can we not find a catharsis effect for inferred negative motive? We believe the stability of this inference can be explained by its deep moral root. Inference about motives provide important information about the morality of an offender (Reeder et al., 2002). For instance, when customers infer that a service failure was caused by a negative motive, they view this situation as morally “wrong”, which triggers a form of “righteous” anger and a strong desire for revenge (Grégoire et al., 2010). We believe the inferred negative motives is especially stable for two reasons. First, these perceptions are not made lightly, and they are typically based on a deep level of processing and elaboration. Second, once a belief about the lack of morality of an offender is encoded, it takes a strong evidence to completely revisit this perception. Because inferred negative motives strongly refers to one's moral value system, perhaps the completion of questionnaires may not be sufficient to influence this cognition.

Moreover, the results provide even stronger evidence that a series of questionnaires can serve as a venting mechanism. The respondents who completed four questionnaires reported a lower level of anger and desire for revenge, compared to the individuals in the other condition. Through these multiple questionnaires, individuals had a chance to “blow off some steam” and vent their anger. This reduction of anger is thought to have a direct effect on a desire for revenge that consequently reduces customer revenge behaviors (e.g., vindictive

behaviors, NWOM). Stated differently, the venting ability of completing questionnaires contributes to the reduction of the emotional or “hot” aspect of a desire for revenge (Bies & Tripp, 1996).

### **2.7.2. The shape of the catharsis effect**

Beyond confirming a catharsis effect, the results suggest that the shape and intensity of this effect depend on the type of responses. The catharsis effect is generally less pronounced and more linear for cognitions compared to emotions. For the cognition such as inferred negative motive, we actually did not find any catharsis effect. The level of negative motive stays flat over time for the aggrieved customers who completed four waves. Again, we believe this stability can be explained by the moral nature of this cognition.

For betrayal, the other cognition, the catharsis effect follows a mild and linear decreasing pattern as the individuals completed the questionnaires. Even after four mere-measurements, the level of betrayal remains substantial ( $M_{\text{surveys-over-time}} = 4.96$ ), and is significantly higher than the mid-point scale ( $p < .001$ ). Given its cognitive nature, the evolution of betrayal appears relatively slow. Our design probably captures only the beginning of a catharsis effect, which would need more measurement waves to completely unfold.

We obtain consistent results for the emotional responses: the catharsis effect takes a clear quadratic and decreasing shape for anger and desire for revenge. In both cases, the decrease is more drastic in the initial measurement periods, and it slows down in latter waves. The non-linear decrease is particularly pronounced for anger, a variable that could be viewed as the “purest” emotional response in this research. After four mere-measurements, the intensity decreases of an impressive 2.54 points (on a seven-point scale), ranging from a high level of anger at wave 1 ( $M_{\text{survey-at-wave1}} = 5.50$ ) to a low level of anger at wave 4 ( $M_{\text{surveys-over-time}} = 2.96$ ). This result suggests that completing multiple questionnaires may have stronger “emotion-venting” than “sense-making” virtues.

Although the catharsis effect for a desire for revenge is also quadratic, the intensity of the decrease is less pronounced compared to anger. After four waves, the decrease ranges from 3.52 at wave 1 to 2.72 at wave 4, for a gap of .8 point. In this case, the non-linear effect is principally explained by a decrease that starts plateauing at wave 3. This milder reduction, compared to anger, can be explained by at least two reasons. First, although a desire for revenge is emotionally charged (as indicated by its correlation with anger), this response is not strictly emotional. A desire for revenge can also be cognitive as a customer can coldly decide that a firm deserves to be punished for the service failure it caused (Grégoire et al., 2010). Second, a desire for revenge also possesses a strong behavioral component—this desire has been found to be the key driver leading to a variety of retaliatory behaviors (Grégoire et al., 2010). Because enacting revenge against firms takes time and energy, it is not that surprising that the starting means for this desire are relatively low (compared to anger).

For vindictive behavior and NWOM as revenge behaviors, the catharsis effect follows a mild and linear decreasing pattern as the individuals completed the questionnaires. After four mere-measurements, the intensity of NWOM decreases of a .93 points (on a seven-point scale), ranging from a high level of NOWM at wave 1 ( $M_{\text{survey-at-wave1}} = 5.05$ ) to a lower level than the mid-point scale at wave 4 ( $M_{\text{surveys-over-time}} = 4.12$ ). Also, the intensity of vindictive behaviors reduce to 1.24 for those who answered multiple questionnaires over time which is significantly lower than the level of vindictive behaviors of those who answered only one survey at the end of two months ( $M_{\text{only-one-survey}} = 2.33$ ).

### **2.7.3. The “true” effect of time**

By comparing the first response made immediately vs. two months after the online complaint, we better understand the “true” effect of time, when the number of mere-measurements is kept constant. Surprisingly, we find that waiting two months has little influence on three key responses; individuals who answered only

one questionnaire reported the same level of inferred negative motives, betrayal and anger, regardless whether the survey was completed immediately or two months after the complaints. Even more surprisingly, we find that time amplifies the first report of a desire for revenge, vindictive behaviors and NWOM. Individual who completed a first survey after two months reported a higher level of desire for revenge ( $M_{\text{only-one-survey}} = 4.60$ ), vindictive behavior ( $M_{\text{only-one-survey}} = 2.33$ ) and NWOM ( $M_{\text{only-one-survey}} = 5.77$ ) compared to those who completed a survey immediately after the complaint ( $M_{\text{Desire for revenge}} = 3.52$ ;  $M_{\text{Vindictive behavior}} = 1.66$ ;  $M_{\text{NWOM}} = 5.05$ ).

These results suggest that time does not have much of a healing effect when it is not accompanied by a series of mere-measurements. When respondents completed a first questionnaire after a long time period, it reactivated thoughts and emotions — at least for inferred negative motive, betrayal and anger — at the same level these responses were two months earlier. In the case of revenge, the reception of a questionnaire after two months even re-energizes the desire to hurt the offending firms at an unprecedented level. For this response, the amplification paradigm seems to hold. For two months, customers did not have a chance to ventilate their desire for revenge, and this emotional restraint created a strong internal pressure. When customers had a chance to finally “release” this desire, they did so with vigor and intensity after two months of it building up.

These results shed new light on the empirical evidence suggesting that revenge responses naturally decrease over time and that “time heals all wounds.” Based on these findings, time has by itself a limited “healing” power: it has no effect on most revenge responses or even amplifies some of them. These results rather suggest that the observed reduction in revenge responses is caused by the opportunity to complete a series of questionnaires over time. The ability to vent one’s emotions and to make sense of the negative situation through questionnaires should be carefully accounted for in the design of future repeated measurement studies. Researchers can do so by adding control conditions to their design. This

catharsis effect should also be accounted at a theoretical level as an important antecedent explaining the decrease in revenge, or the increase in reconciliation.

## **2.8. Managerial implications**

While prior research mostly focus on prevention of customer revenge and development of effective recovery strategies (Grégoire et al., 2009; Haj-Salem & Chebat, 2013; Joireman, Grégoire, Devezzer, & Tripp, 2013; Zourrig et al., 2009), the findings of this research provide the basis for managers to reduce customer revenge. This research proposes sending a series of questionnaires to aggrieved customers over time as a simple, different and powerful solution to reduce customer revenge. This solutions allows aggrieved customers to express their negative emotions and make sense of the unfair service experience. So, managers should create multiple opportunities for customers to express their dissatisfaction rather than hoping that the negative feelings will simply dissipate through time. This solution is recommended for three reasons. First, it is important to provide such an opportunity because a desire for revenge is unlikely to dissipate by itself. Second, this procedure provides psychological well-being for customers. Finally, as confirmed by the results of this research, this procedure is effective, relatively inexpensive, and easy to implement.

However, firms should be cautious about the effect of their actions on customers' cognitions and emotions. Although creating multiple opportunities for customers to vent their unfair service experiences has a catharsis effect on their negative emotions, revenge desire and behaviors, it does not help customers to forget the service failures. Indeed, customers do not forget service providers' negative motives even if they express less anger and desire for revenge after they answer a series of questionnaires over time. It remains the firm's responsibility to show their goodwill and reconstruct their image in the customers' mind (Grégoire et al., 2009). In light of these findings it becomes increasingly important for managers to address underlying issues to prevent occurrence of any service

failures.

## **2.9. Limitations and future research**

As with any study there are some limitations and shortcoming in this research. First, because we performed a longitudinal field experiment with real online complainers, we had difficulties controlling over the response rate. In addition, we focused only on customer revenge responses. As it is also important for managers to figure out when and how customers seek reconciliation and forgiveness, it would be important to consider other desires and behaviors related to reconciliation and forgiveness (Aquino et al. 2006; Bono et al. 2008; McCullough et al. 2010).

According to the result of McCullough et al. (2001), personality traits only explain thirty percent of the vengefulness variance. Despite its weak effects, it would become important to do further research based on the role of personality traits (i.e., neuroticism, agreeableness and negative affect) on the customer revenge responses over time.

As the effect of completing surveys is especially salient according to our results, more attention should be devoted to the effects of the content of a questionnaire on the intensity of the catharsis effect. In other words, it would be valuable to know how the length, the format, the number of questions, the type of questions and the source of the questionnaire could impact the reduction in revenge responses.



## 2.10. References

- Aquino, K., Tripp, T. M., & Bies, R. J. (2006). Getting even or moving on? Power, procedural justice, and types of offense as predictors of revenge, forgiveness, reconciliation, and avoidance in organizations. *Journal of Applied Psychology*, 91(3), 653.
- Barclay, L. J., & Skarlicki, D. P. (2009). Healing the wounds of organizational injustice: examining the benefits of expressive writing. *Journal of Applied Psychology*, 94(2), 511.
- Bechwati, N., & Morrin, M. (2003). Outraged consumers: Getting even at the expense of getting a good deal. *Journal of Consumer Psychology*, 13(4).
- Bies, R. J., & Tripp, T. M. (1996). Beyond distrust: “getting even” and the need for revenge.
- Bies, R. J., Tripp, T. M., & Kramer, R. M. (1997). At the breaking point: Cognitive and social dynamics of revenge in organizations.
- Bonifield, C., & Cole, C. (2007). Affective responses to service failure: Anger, regret, and retaliatory versus conciliatory responses. *Marketing Letters*, 18(1-2), 85–99.
- Bono, G., McCullough, M. E., & Root, L. M. (2008). Forgiveness, feeling connected to others, and well-being: Two longitudinal studies. *Personality and Social Psychology Bulletin*, 34(2), 182–195.
- Bougie, R., Pieters, R., & Zeelenberg, M. (2003). Angry customers don’t come back, they get back: the experience and behavioral implications of anger and dissatisfaction in services. *Journal of the Academy of Marketing Science*, 31(4), 377–393.
- Bushman, B. J., Baumeister, R. F., & Stack, A. D. (1999). Catharsis, aggression, and persuasive influence: Self-fulfilling or self-defeating prophecies? *Journal of Personality and Social Psychology*, 76(3), 367.
- Campbell, M. C. (1999). Perceptions of price unfairness: Antecedents and consequences. *Journal of Marketing Research (JMR)*, 36(2).
- Chandon, P., Smith, R. J., Morwitz, V. G., Spangenberg, E. R., & Sprott, D. E. (2011). When does the past repeat itself? The interplay of behavior prediction and personal norms. *Journal of Consumer Research*, 38(3), 420–430.

- Charlton, G. (2011). *Poor customer service means more complaints on social media: study*. *Econsultancy*. Retrieved July 15, 2014, from [http://econsultancy.com/blog/7300-poor-customer-service-leads-to-more-complaints-on-social-media-survey?utm\\_campaign=bloglikes&utm\\_medium=socialnetwork&utm\\_source=facebook](http://econsultancy.com/blog/7300-poor-customer-service-leads-to-more-complaints-on-social-media-survey?utm_campaign=bloglikes&utm_medium=socialnetwork&utm_source=facebook)
- Crossley, C. D. (2009). Emotional and behavioral reactions to social undermining: A closer look at perceived offender motives. *Organizational Behavior and Human Decision Processes*, 108(1), 14–24.
- Elangovan, A. R., & Shapiro, D. L. (1998). Betrayal of trust in organizations. *Academy of Management Review*, 23(3), 547–566.
- Fitness, J. (2001). Betrayal, rejection, revenge, and forgiveness: An interpersonal script approach. *Interpersonal Rejection*, 73–103.
- Fitzmaurice, L., Laird, N. M., & James, H. (2004). *Ware (2004). Applied longitudinal analysis*. Wiley & Sons.
- Fitzsimons, G. J., & Moore, S. G. (2008). Should we ask our children about sex, drugs and rock & roll? Potentially harmful effects of asking questions about risky behaviors. *Journal of Consumer Psychology: The Official Journal of the Society for Consumer Psychology*, 18(2), 82.
- Fitzsimons, G. J., & Morwitz, V. G. (1996). The effect of measuring intent on brand-level purchase behavior. *Journal of Consumer Research*, 1–11.
- Geen, R. G., & Quanty, M. B. (1977). The catharsis of aggression: An evaluation of a hypothesis. *Advances in Experimental Social Psychology*, 10, 1–37.
- Godin, G., Sheeran, P., Conner, M., & Germain, M. (2008). Asking questions changes behavior: mere measurement effects on frequency of blood donation. *Health Psychology*, 27(2), 179.
- Gottman, J. M. (1993). A theory of marital dissolution and stability. *Journal of Family Psychology*, 7(1), 57.
- Gouldner, A. W. (1960). The norm of reciprocity: A preliminary statement. *American*

- Sociological Review, 161–178.
- Greenwald, A. G., Carnot, C. G., Beach, R., & Young, B. (1987). Increasing voting behavior by asking people if they expect to vote. *Journal of Applied Psychology*, 72(2), 315.
- Grégoire, Y., & Fisher, R. J. (2008). Customer betrayal and retaliation: when your best customers become your worst enemies. *Journal of the Academy of Marketing Science*, 36(2), 247–261.
- Grégoire, Y., Laufer, D., & Tripp, T. M. (2010). A comprehensive model of customer direct and indirect revenge: understanding the effects of perceived greed and customer power. *Journal of the Academy of Marketing Science*, 38(6), 738–758.
- Grégoire, Y., Tripp, T. M., & Legoux, R. (2009). When customer love turns into lasting hate: the effects of relationship strength and time on customer revenge and avoidance. *Journal of Marketing*, 73(6), 18–32.
- Haj-Salem, N., & Chebat, J. C. (2013). The double-edged sword: The positive and negative effects of switching costs on customer exit and revenge. *Journal of Business Research*.
- Harris, L. C., & Reynolds, K. L. (2004). Jaycustomer behavior: an exploration of types and motives in the hospitality industry. *Journal of Services Marketing*, 18(5), 339–357.
- Heckman, J. J. (1979). Sample selection bias as a specification error. *Econometrica: Journal of the Econometric Society*, 153–161.
- Hibbard, J. D., Kumar, N., & Stern, L. W. (2001). Examining the impact of destructive acts in marketing channel relationships. *Journal of Marketing Research*, 38(1), 45–61.
- Huefner, J. C., & Hunt, H. K. (2000). Consumer retaliation as a response to dissatisfaction. *Journal of Consumer Satisfaction Dissatisfaction and Complaining Behavior*, (13), 61–69.
- Joireman, J., Grégoire, Y., Devezer, B., & Tripp, T. M. (2013). When do customers offer firms a “second chance” following a double deviation? The impact of inferred firm motives on customer revenge and reconciliation. *Journal of Retailing*, 89(3),

315–337.

- Jones, W. H., & Burdette, M. P. (1994). Betrayal in relationships. *Perspectives on Close Relationships*, 243–262.
- Keeffe, D. A., Russell-Bennett, R., & Tombs, A. (2008). Customer retaliation at the employee-customer interface. *Journal of Management and Organization*, 14(4), 438–450.
- Lazarus, R. S. (1991). Progress on a cognitive-motivational-relational theory of emotion. *American Psychologist*, 46(8), 819.
- Lazarus, R. S., & Lazarus, B. N. (1994). *Passion & reason: Making sense of our emotions*. Oxford University Press on Demand.
- Lerner, J. S., & Keltner, D. (2001). Fear, anger, and risk. *Journal of Personality and Social Psychology*, 81(1), 146.
- Levav, J., & Fitzsimons, G. J. (2006). When Questions Change Behavior The Role of Ease of Representation. *Psychological Science*, 17(3), 207–213.
- Liu, R. R., & McClure, P. (2001). Recognizing cross-cultural differences in consumer complaint behavior and intentions: an empirical examination. *Journal of Consumer Marketing*, 18(1), 54–75.
- Maxham, J. G., & Netemeyer, R. G. (2002). Modeling customer perceptions of complaint handling over time: the effects of perceived justice on satisfaction and intent. *Journal of Retailing*, 78(4), 239–252.
- McColl-Kennedy, J. R., Patterson, P. G., Smith, A. K., & Brady, M. K. (2009). Customer rage episodes: emotions, expressions and behaviors. *Journal of Retailing*, 85(2), 222–237.
- McCullough, M. E., Bellah, C. G., Kilpatrick, S. D., & Johnson, J. L. (2001). Vengefulness: Relationships with forgiveness, rumination, well-being, and the Big Five. *Personality and Social Psychology Bulletin*, 27(5), 601–610.
- McCullough, M. E., Bono, G., & Root, L. M. (2007). Rumination, emotion, and forgiveness: three longitudinal studies. *Journal of Personality and Social Psychology*, 92(3), 490.
- McCullough, M. E., Fincham, F. D., & Tsang, J.-A. (2003). Forgiveness, forbearance,

- and time: the temporal unfolding of transgression-related interpersonal motivations. *Journal of Personality and Social Psychology*, 84(3), 540.
- McCullough, M. E., Kurzban, R., & Tabak, B. A. (2010). Evolved mechanisms for revenge and forgiveness. *Understanding and Reducing Aggression, Violence, and Their Consequences*, 221–239.
- McCullough, M. E., Luna, L. R., Berry, J. W., Tabak, B. A., & Bono, G. (2010). On the form and function of forgiving: modeling the time-forgiveness relationship and testing the valuable relationships hypothesis. *Emotion*, 10(3), 358.
- McGregor, J. (2008). *Customer backlash against bad service*. *msnbc.com*. Retrieved July 15, 2014, from [http://www.nbcnews.com/id/23283402/ns/business-us\\_business/t/customer-backlash-against-bad-service/](http://www.nbcnews.com/id/23283402/ns/business-us_business/t/customer-backlash-against-bad-service/)
- Morwitz, V. G., & Fitzsimons, G. J. (2004). The mere-measurement effect: Why does measuring intentions change actual behavior? *Journal of Consumer Psychology*, 14(1), 64–74.
- Morwitz, V. G., Johnson, E. J., & Schmittlein, D. (1993). Does measuring intent change behavior? *Journal of Consumer Research*, 20, 46–61.
- Nguyen, D. T., & McColl-Kennedy, J. R. (2003). Diffusing customer anger in service recovery: A conceptual framework. *Australasian Marketing Journal (AMJ)*, 11(2), 46–55.
- Oliver, R. L. (2010). *Satisfaction: A behavioral perspective on the consumer*. ME Sharpe.
- Pennebaker, J. W. (1989). Confession, inhibition, and disease. *Advances in Experimental Social Psychology*, 22, 211–244.
- Pennebaker, J. W. (1997). Writing about emotional experiences as a therapeutic process. *Psychological Science*, 8(3), 162–166.
- Pennebaker, J. W., & Beall, S. K. (1986). Confronting a traumatic event: toward an understanding of inhibition and disease. *Journal of Abnormal Psychology*, 95(3), 274.
- Reeder, G. D., Kumar, S., Hesson-McInnis, M. S., & Trafimow, D. (2002). Inferences about the morality of an aggressor: the role of perceived motive. *Journal of Personality and Social Psychology*, 83(4), 789.

- Richins, M. L. (1997). Measuring emotions in the consumption experience. *Journal of Consumer Research*, 24(2), 127–146.
- Schoefer, K., & Ennew, C. (2005). The impact of perceived justice on consumers' emotional responses to service complaint experiences. *Journal of Services Marketing*, 19(5), 261–270.
- Schwarz, N., & Clore, G. L. (1983). Mood, misattribution, and judgments of well-being: Informative and directive functions of affective states. *Journal of Personality and Social Psychology*, 45(3), 513.
- Sherman, S. J. (1980). On the self-erasing nature of errors of prediction. *Journal of Personality and Social Psychology*, 39(2), 211.
- Singh, J. (1988). Consumer complaint intentions and behavior: definitional and taxonomical issues. *The Journal of Marketing*, 93–107.
- Skarlicki, D. P., & Folger, R. (1997). Retaliation in the workplace: The roles of distributive, procedural, and interactional justice. *Journal of Applied Psychology*, 82(3), 434.
- Smith, A. K., Bolton, R. N., & Wagner, J. (1999). A model of customer satisfaction with service encounters involving failure and recovery. *Journal of Marketing Research*, 356–372.
- Smith, C. A., & Ellsworth, P. C. (1985). Patterns of cognitive appraisal in emotion. *Journal of Personality and Social Psychology*, 48(4), 813.
- Smith, J. K., Gerber, A. S., & Orlich, A. (2003). Self-Prophecy Effects and Voter Turnout: An Experimental Replication. *Political Psychology*, 24(3), 593–604.
- Smyth, J. M., Stone, A. A., Hurewitz, A., & Kaell, A. (1999). Effects of writing about stressful experiences on symptom reduction in patients with asthma or rheumatoid arthritis: a randomized trial. *Jama*, 281(14), 1304–1309.
- Smyth, J. M., True, N., & Souto, J. (2001). Effects of writing about traumatic experiences: The necessity for narrative structuring. *Journal of Social and Clinical Psychology*, 20(2), 161–172.
- Spangenberg, E. R., & Greenwald, A. G. (1999). Social influence by requesting self-prophecy. *Journal of Consumer Psychology*, 8(1), 61–89.

- Sprott, D. E., Spangenberg, E. R., Block, L. G., Fitzsimons, G. J., Morwitz, V. G., & Williams, P. (2006). The question–behavior effect: What we know and where we go from here. *Social Influence*, 1(2), 128–137.
- Sprott, D. E., Spangenberg, E. R., & Fisher, R. (2003). The importance of normative beliefs to the self-prophecy effect. *Journal of Applied Psychology*, 88(3), 423.
- Stuckless, N., & Goranson, R. (1992). The Vengeance Scale: Development of a measure of attitudes toward revenge. *Journal of Social Behavior & Personality*.
- Swager, J. (2011). *What's your batting percentage ? Examiner.com*. Retrieved July 15, 2014, from <http://www.examiner.com/article/what-s-your-batting-percentage>
- Tsang, J., McCullough, M. E., & Fincham, F. D. (2006). The longitudinal association between forgiveness and relationship closeness and commitment. *Journal of Social and Clinical Psychology*, 25(4), 448–472.
- Van Vliet, W. (1984). Vandalism: an assessment agenda. *Vandalism: Behaviour and Motivations*.
- Ward, J. C., & Ostrom, A. L. (2006). Complaining to the masses: The role of protest framing in customer-created complaint web sites. *Journal of Consumer Research*, 33(2), 220–230.
- Wegman, C. (1985). *Psychoanalysis and cognitive psychology: A formalization of Freud's earliest theory*. Academic Press London.
- Zourrig, H., Chebat, J. C., & Toffoli, R. (2009). Consumer revenge behavior: a cross-cultural perspective. *Journal of Business Research*, 62(10), 995–1001.

## 2.11. Appendices

### 2.11.1. Appendix 1 : Scale statistics (cronbach's alphas, means, standard deviations, AVE, and EFA loadings)

Measurements	
Inferred Negative Motives	
<p>The service firm...</p> <ul style="list-style-type: none"> <li>• ...had good intentions (1) _ ...had bad intentions (7)</li> <li>• ...did not intent to take advantage of me (1) _ ...intended to take advantage of me (7)</li> <li>• ...did not try to abuse me (1) _ ...tried to abuse me (7)</li> <li>• ...was preliminary motivated by my interest (1) _ ...was preliminary motivated by its own interest (7)</li> </ul>	
<p><b>Wave 1</b>  <math>\alpha = .854</math>  Mean (M)= 5.637  Standard Deviation (SD)= 1.722  Average variance extracted (AVE)= 0.622  EFA Loading : between .633 and .888</p>	<p><b>Wave 3</b>  Mean (M)= 5.557  Standard Deviation (SD)= 1.52</p>
<p><b>Wave 2</b>  Mean (M)= 5.5542  Standard Deviation (SD)= 1.69924</p>	<p><b>Wave 4</b>  Mean (M)= 5.6592  Standard Deviation (SD)= 1.50</p>
Betrayal	
<p>At the moment of service failure...</p> <ul style="list-style-type: none"> <li>• ...I felt betrayed by the firm</li> <li>• ...I felt cheated by the firm</li> <li>• ...the firm broke the promise made to me</li> <li>• ...my confidence in this firm was violated</li> <li>• ...the firm let me down in a moment of need</li> <li>• ...I felt "stabbed in the back" by the firm</li> </ul>	
<p><b>Wave 1</b>  <math>\alpha = .880</math>  Mean (M)= 6.06  Standard Deviation (SD)= 1.39  Average variance extracted (AVE) = 0.566  EFA Loading: between .634 and .802</p>	<p><b>Wave 3</b>  <math>\alpha = .899</math>  Mean (M)= 5.32  Standard Deviation (SD)= 1.98  Average variance extracted (AVE) = 0.607  EFA Loading: between .706 and .810</p>
<p><b>Wave 2</b>  <math>\alpha = .921</math>  Mean (M)= 5.37  Standard Deviation (SD)= 2.09  Average variance extracted (AVE) = 0.669  EFA Loading: between .701 and .858</p>	<p><b>Wave 4</b>  <math>\alpha = .930</math>  Mean (M)= 4.98  Standard Deviation (SD)= 2.21  Average variance extracted (AVE) = 0.695  EFA Loading: between .746 and .863</p>



Measurements	
<b>Anger</b>	
At the moment of service failure I felt...	
<ul style="list-style-type: none"> <li>• Mad</li> <li>• Furious</li> <li>• Outraged</li> <li>• Angry</li> </ul>	
<b>Wave 1</b>	<b>Wave 3</b>
$\alpha = .942$	$\alpha = .943$
Mean (M)= 5.61	Mean (M)= 3.49
Standard Deviation (SD)= 1.95	Standard Deviation (SD)= 2.16
Average variance extracted (AVE)=.771	Average variance extracted (AVE)= .808
EFA Loading: between .792 and .882	EFA Loading: between .769 and .869
<b>Wave 2</b>	<b>Wave 4</b>
$\alpha = .937$	$\alpha = .935$
Mean (M)= 4.08	Mean (M)= 2.99
Standard Deviation (SD)= 2.23	Standard Deviation (SD)= 1.96
Average variance extracted (AVE)= .789	Average variance extracted (AVE)= .793
EFA Loading: between .727 and .851	EFA Loading: between .735 and .875
<b>Desire for Revenge</b>	
Thinking of the service failure, at the current moment I want to...	
<ul style="list-style-type: none"> <li>• ...take actions to get the firm in trouble.</li> <li>• ...punish the firm in some way.</li> <li>• ...cause inconvenience to the firm.</li> <li>• ...get even with the service firm.</li> <li>• ...make the service firm get what it deserved.</li> </ul>	
<b>Wave 1</b>	<b>Wave 3</b>
$\alpha = .965$	$\alpha = .946$
Mean (M)= 3.55	Mean (M)= 2.63
Standard Deviation (SD)= 2.33	Standard Deviation (SD)= 2.08
Average variance extracted (AVE) = .847	Average variance extracted (AVE)= .782
EFA Loading: between .862 and .897	EFA Loading: between .806 and .873
<b>Wave 2</b>	<b>Wave 4</b>
$\alpha = .966$	$\alpha = .954$
Mean (M)= 2.98	Mean (M)= 2.61
Standard Deviation (SD)= 2.19	Standard Deviation (SD)= 2.10
Average variance extracted (AVE)= .820	Average variance extracted (AVE)=.811
EFA Loading: between .763 and .946	EFA Loading: between .823 and .909
<b>Vindictive Behavior</b>	
At the time of service failure, I complained to the service firm to...	
<ul style="list-style-type: none"> <li>• ...give a hard time to the representatives.</li> <li>• ...be unpleasant with the representatives of the company.</li> <li>• ...make someone from the organization suffer for their services.</li> <li>• ...say rude things to the frontline employees.</li> </ul>	

Measurements	
<b>Wave 1</b> $\alpha = .913$ Mean (M)= 1.60 Standard Deviation (SD)= 1.34 Average variance extracted (AVE) = 0.732 EFA Loading: between .846 and .899	<b>Wave 3</b> $\alpha = .856$ Mean (M)= 1.32 Standard Deviation (SD)= 1.01 Average variance extracted (AVE) = 0.703 EFA Loading: between .696 and .930
<b>Wave 2</b> $\alpha = .849$ Mean (M)= 1.43 Standard Deviation (SD)= 1.23 Average variance extracted (AVE) = .702 EFA Loading: between .820 and .870	<b>Wave 4</b> $\alpha = .876$ Mean (M)= 1.21 Standard Deviation (SD)= .74 Average variance extracted (AVE) = 0.698 EFA Loading: between .803 and .907
NWOM	
Since the service failure... <ul style="list-style-type: none"> <li>• ...I spread negative word-of-mouth about the firm.</li> <li>• ...I bad-mouthed against the firm to my friend.</li> <li>• ...when my friends were looking for a similar product or service, I told them not to buy from this firm.</li> </ul>	
<b>Wave 1</b> $\alpha = .852$ Mean (M)= 5.08 Standard Deviation (SD)= 1.41 Average variance extracted (AVE) = 0.685 EFA Loading: between .799 and .876	<b>Wave 3</b> $\alpha = .893$ Mean (M)= 4.199 Standard Deviation (SD)= 2.46 Average variance extracted (AVE) = 0.750 EFA Loading: between .817 and .855
<b>Wave 2</b> $\alpha = .889$ Mean (M)= 4.57 Standard Deviation (SD)= 2.43 Average variance extracted (AVE) = 0.743 EFA Loading: between .829 and .844	<b>Wave 4</b> $\alpha = .917$ Mean (M)= 4.19 Standard Deviation (SD)= 2.46 Average variance extracted (AVE) = 0.804 EFA Loading: between .828 and .908

### 2.11.2. Appendix 2 : Questionnaire (at wave 1)

#### PART ONE: DESCRIPTION OF THE FAILURE

What is the title of you report to consumerAffaires.com (Company name, descriptive words, city, state)?

Please briefly discuss the service failure that you describe in you report (one or two sentences)

Why did you decide to take public actions by writing a report to ConsumerAffairs.com? Please list all the reasons.

Did you receive any advises or comments from other consumers (yes or no)? If so, what did you think of them?

Did someone from the firm write a rebuttal in response to your report (yes or no)? If so, what did you think of it?

How did you feel after writing a report to ConsumerAffairs.com? Please describe in details?

#### PART TWO: YOUR RELATIONSHIP BEFORE THE SERVICE FAILURE

This part of the survey asks questions about your relationship with the service firm **BEFORE THE SERVICE FAILURE OCCURRED.** Please try to put yourself back in time just before the service failure occurred, and answer the questions as you thought or felt then.

**BEFORE** the service failure, how long had you been a customer of this service form

approximately (in months)?

**BEFORE the service failure**, how many times in the last 12 months (approximately) did you interact with this service firm?

**BEFORE the service failure**, my relationship with the service firm was based on its ability to...

	<b>Strongly Disagree</b>					<b>Strongly Agree</b>	
...offer a good deal.	1	2	3	4	5	6	7
...give good service for the price.	1	2	3	4	5	6	7
...provide the right service at the right price.	1	2	3	4	5	6	7
...recognize who I am as a customer.	1	2	3	4	5	6	7
...know my personal needs as a customer.	1	2	3	4	5	6	7
...build a “one-on-one” connection.	1	2	3	4	5	6	7
...make me feel important and appreciated.	1	2	3	4	5	6	7

**BEFORE the service failure**, I felt that the firm was...

...very undependable	neither					...very dependable
1	2	3	4	5	6	7

...very incompetent	neither					...very competent
1	2	3	4	5	6	7

...of low integrity	neither					... of high integrity
1	2	3	4	5	6	7

...very unresponsive	neither					... very responsive
----------------------	---------	--	--	--	--	---------------------

1	2	3	4	5	6	7
---	---	---	---	---	---	---

**BEFORE the service failure...**

	Strongly Disagree					Strongly Agree	
...I was very committed to my relationship with the service firm.	1	2	3	4	5	6	7
...this relationship was something I intended to maintain for a long time.	1	2	3	4	5	6	7
...I put efforts into maintaining this relationship.	1	2	3	4	5	6	7

**PART THREE: YOUR SERVICE FAILURE EXPERIENCE**

This part of the survey asks you questions about the service failure you experienced. To answer them, please try to recall the thoughts and feelings you experienced at the time of the service failure.

**Please indicate your level of agreement with the following statements.**

	Strongly Disagree			Strongly Agree			
... Despite the hassle caused by the problem, the firm responded fairly and quickly.	1	2	3	4	5	6	7
...I feel the firm responded in a timely fashion to the problem.	1	2	3	4	5	6	7
...I believe the firm has fair policies and practices to handle problems.	1	2	3	4	5	6	7
...With respect to its policies and procedures, the firm handled the problem in a fair manner.	1	2	3	4	5	6	7

The employee(s) who interacted with me...

	Strongly Disagree					Strongly Agree	
...treated me in a polite manner.	1	2	3	4	5	6	7

...gave me detailed explanations and relevant advice.	1	2	3	4	5	6	7
...treated me with respect.	1	2	3	4	5	6	7
...treated me with empathy.	1	2	3	4	5	6	7

Referring to all outcomes you received (such as the compensation, exchange, refund, gift, or discount), indicate your level of agreement with the following statements.

	<b>Strongly Disagree</b>				<b>Strongly Agree</b>		
Overall, the outcomes I received from the service firm were fair.	1	2	3	4	5	6	7
Given the time, money and hassle, I got fair outcomes.	1	2	3	4	5	6	7
I got what I deserved.	1	2	3	4	5	6	7

The service failure caused me ...

...minor Problems							...major problems
1	2	3	4	5	6	7	
...small inconveniences							...big inconveniences
1	2	3	4	5	6	7	
...minor aggravation							...major aggravation
1	2	3	4	5	6	7	

Overall, the service firm was...

...not at all responsible for the service failure							...totally responsible for the service failure
1	2	3	4	5	6	7	

Overall, the service failure was ...

...in no way the service firm's fault							...completely the service firm's fault
---------------------------------------	--	--	--	--	--	--	--

1	2	3	4	5	6	7
---	---	---	---	---	---	---

To what extent do you blame the service firm for what happened?

...Not at all			...completely			
1	2	3	4	5	6	7

The service firm...

...had good intentions			...had bad intentions			
1	2	3	4	5	6	7

At the moment of service failure I felt...

	Strongly Disagree			Strongly Agree			
...mad	1	2	3	4	5	6	7
...furious	1	2	3	4	5	6	7
...outraged	1	2	3	4	5	6	7
...resentful	1	2	3	4	5	6	7
...angry	1	2	3	4	5	6	7
...dissatisfied	1	2	3	4	5	6	7
...discontented	1	2	3	4	5	6	7
...displeased	1	2	3	4	5	6	7

At the moment of service failure...

	Strongly Disagree			Strongly Agree			
...I felt betrayed by the firm	1	2	3	4	5	6	7
...I felt cheated by the firm	1	2	3	4	5	6	7
...the firm broke the promise made to me	1	2	3	4	5	6	7
...my confidence in this firm was violated	1	2	3	4	5	6	7
...the firm let me down in a moment of need	1	2	3	4	5	6	7
...I felt "stabbed in the back" by the firm	1	2	3	4	5	6	7

At the moment of service failure, I wanted to...

	Strongly Disagree			Strongly Agree			
...take actions to get the	1	2	3	4	5	6	7

firm in trouble							
...punish the firm in some way	1	2	3	4	5	6	7
...cause inconvenience to the firm	1	2	3	4	5	6	7
...get even with the service firm	1	2	3	4	5	6	7
...make the service firm get what it deserved	1	2	3	4	5	6	7
...keep as much distance as possible between the firm and me.	1	2	3	4	5	6	7
Live as this firm doesn't exist, isn't around.	1	2	3	4	5	6	7
...avoid frequenting the firm.	1	2	3	4	5	6	7
...cut off the relationship with the firm.	1	2	3	4	5	6	7
...withdraw my business from the firm.	1	2	3	4	5	6	7
...receive an apology	1	2	3	4	5	6	7
...have the firm assume responsibility for its actions.	1	2	3	4	5	6	7
...receive a form of reparation for the failure.	1	2	3	4	5	6	7
...have the firm fix its mistakes.	1	2	3	4	5	6	7

At the time of the service failure, I complained to the service firm to...

	Strongly Disagree				Strongly Agree			
...constructively discuss the problem.	1	2	3	4	5	6	7	
...find a satisfactory solution for both parties.	1	2	3	4	5	6	7	
...work with its representatives to solve the problem.	1	2	3	4	5	6	7	
...give a hard time to the representatives.	1	2	3	4	5	6	7	
...be unpleasant with the representatives of the company.	1	2	3	4	5	6	7	
...make someone from the	1	2	3	4	5	6	7	



organization suffers for their services.								
...say rude things to the frontline employees.	1	2	3	4	5	6	7	

At the time of service failure...

	<b>Strongly Disagree</b>				<b>Strongly Agree</b>			
...I damaged property belonging to the service firm.	1	2	3	4	5	6	7	
...I deliberately bent or broke the policies of the firm.	1	2	3	4	5	6	7	
...I showed signs of impatience and frustration to someone from the firm.	1	2	3	4	5	6	7	
...I hit something or slammed a door in front of (an) employee(s)	1	2	3	4	5	6	7	

Thinking of the way you felt through the service failure, indicate your agreement with the following statement...

	<b>Strongly Disagree</b>				<b>Strongly Agree</b>			
Overall, I felt powerless when dealing with the service firm.	1	2	3	4	5	6	7	
I was able to convince the firm to see things my way.	1	2	3	4	5	6	7	
I had control over the resolutions of this failure.	1	2	3	4	5	6	7	
Through this service failure, I had leverage over the service firm.	1	2	3	4	5	6	7	
Because I had a strong conviction of being right, I was able to convince the firm.	1	2	3	4	5	6	7	
The stronger my conviction, the more I was able to get my way with the firm.	1	2	3	4	5	6	7	
I had the ability to influence the decisions made by the	1	2	3	4	5	6	7	

service firm.								
The seller needed to continue business with me more than I needed to continue business with it.	1	2	3	4	5	6	7	
The seller couldn't afford to have dissatisfied customers.	1	2	3	4	5	6	7	
The seller needed my continuing business.	1	2	3	4	5	6	7	
There were many alternatives for this product and service.	1	2	3	4	5	6	7	
I could take my business elsewhere.	1	2	3	4	5	6	7	
I had very few choices where to obtain this product or service.	1	2	3	4	5	6	7	

#### PART FOUR: AFTER SERVICE FAILURE

This part of the survey asks you questions about the thoughts and actions that followed the service failure.

Since the service failure, please indicate the frequency with which you have had the following experiences.

	Not at all				Extremely			
I couldn't stop thinking about what the service firm did to me.	1	2	3	4	5	6	7	
Thoughts and feelings about how the firm hurt me kept running through my head.	1	2	3	4	5	6	7	
Strong feelings about what the firm did to me kept bubbling up.	1	2	3	4	5	6	7	
Images of the service failure kept coming back to me.	1	2	3	4	5	6	7	

Since the Service failure...

	Strongly Disagree					Strongly Agree	
...I spread negative word-of-mouth about the firm	1	2	3	4	5	6	7
...I bad-mouthed against this firm to my friends	1	2	3	4	5	6	7
...when my friends were looking for a similar product or service, I told them not to	1	2	3	4	5	6	7

buy from this firm							
...I spent less money at this business	1	2	3	4	5	6	7
...I stopped doing business with this firm	1	2	3	4	5	6	7
...I reduced frequency of interaction with the firm	1	2	3	4	5	6	7
...I brought a significant part of my business to a competitor	1	2	3	4	5	6	7

How long did it take, after the service failure, before you wrote a report to [consumeraffairs.com](http://consumeraffairs.com) (in days)?

After the service failure, I wrote a report to ConsumerAffairs.com ...

	1	2	3	4	5	6	7
...to make public the behaviors and practices of the firm.							
...to report my experience to other consumers.							
...to spread the word about my misadventure.							
...so that my experience with this firm would be known.							
...to have other customers help me resolve my disagreement with the firm.							
...To solicit the expertise of other customers about my issues with the firm.							
...so other customers could advise me on the way to reach a settlement.							
...to ensure that others would not go through what I went through.							
...to protect others from this type of situation.							
...to warn others so that they wouldn't experience similar failure.							

...to find a legal remedy to my problem.
...to have access to legal expertise.
...to be in contact with attorneys who could help me with the failure.

## PART FIVE: PERSONAL INFORMATION

For each of the following statements, please mark the number on the scale which best describes how you generally feel.

	Almost never	1	2	3	4	5	6	Almost always
I have a fiery temperament.								
I am quick-tempered.								
I am a hot-headed person.								
It makes me furious when I am criticized in front of others.								
I get angry when I'm slowed down by other's mistakes.								
I feel infuriated when I do a good job and get a poor evaluation.								
I fly off the handle.								
I feel annoyed when I am not given recognition for doing good work.								
When I get mad, I say nasty things.								
When I get frustrated, I feel like hitting someone.								

What is your mother tongue?

☐ English

☐ Other

What is your age?

What is your gender?

☐ Female

☐ Male

How many times have you posted a consumer complaint, report, or review in the last 12 months?

The next question will be used to contact you for the three follow-up questionnaires, and to match your responses over time.

What is your email address?

**Chapter III – Article. 2**

**Does the Form and Content of the Questionnaire  
Matter? The Effects of Expressive Writing and Pre-  
formatted Surveys on Customer Revenge and  
Reconciliation Responses over Time**

**Mina Rohani**

HEC Montréal

3000, chemin de la Côte-Ste-Catherine

Montréal, Québec, H3T 2A7

Canada

[mina.rohani@hec.ca](mailto:mina.rohani@hec.ca)

### 3.1. Abstract

This research offers firms a solution that customers as an organization's entity and a resource can take an active role in managing revenge and reconciliation on their own. The current research examines the effectiveness of different *forms* (i.e., expressive writings vs. pre-formatted surveys) and *contents* (i.e., cognitions only, emotions only, both emotions and cognitions) of the questionnaires over time on reducing customer revenge and promoting reconciliation responses following a double deviation. Using a longitudinal field experiment, the results demonstrate that: 1) "pre-formatted surveys about both cognitions and emotions" is the optimal questionnaire in reducing customer revenge responses (i.e., betrayal, anger, and desire for avoidance) and promoting desire for reconciliation. 2) pre-formatted surveys reduce customer revenge responses and promote desire for reconciliation more than expressive writings. 3) expressive writings *counterintuitively* amplify customer revenge responses and reduce desire for reconciliation.

*Keywords:* Expressive writing, pre-formatted survey, mere-measurement, the effect of time, inferred negative motives, betrayal, anger, desire for revenge, desire for avoidance, desire for reconciliation, double deviation.

### 3.2. Introduction

Many customers may experience a strong desire to hurt a firm in response to an unfair treatment. Customers who have experienced unfairness from a service provider often report extreme cognitions (e.g., inferred negative motives) and negative emotions (e.g., anger) that may lead them to engage in extremely negative desires and possible behaviors (Aquino, Tripp, & Bies, 2006; Bies & Tripp, 1996). Negative word-of-mouth, insulting a service encounter, taking legal actions, vindictive complaining and third party complaining for publicity are possible revenge behaviors in response to service failures (Bonifield & Cole, 2007; Grégoire & Fisher, 2008). Previous research shows that experiencing intense negative emotions and thoughts are unhealthy and may cause physical and psychological harm such as depression (Tepper, 2001), insomnia (Greenberg, 2006) and coronary heart disease (Kivimäki et al., 2005).

To date, most research examining the reduction of customer revenge has focused on organizational interventions. They have offered solutions to firms (e.g., apology or compensation) to protect firms and increase customers' satisfaction. In other words, this approach mainly focuses on service provider's outcomes and customer external rewards (e.g., reducing the costs of legal actions) rather than helping aggrieved customers to internally deal with the negative event, so they could naturally move from revenge to forgiveness (Chebat & Slusarczyk, 2005; Schoefer & Ennew, 2005; Wirtz & Mattila, 2004). Indeed, such research assumes aggrieved customers play a passive role in which they have limited control over their revenge. Accordingly, customers do not learn how to mitigate the psychological or physical symptoms caused by revenge on their own.

To guide managers' action to benefit from customers' active role in controlling their revenge responses, the current research examines how the form and content of questionnaires influence customer revenge and reconciliation responses over time. In this examination, the special attention is on the evolution of customer revenge and reconciliation responses over time following a "double deviation", that is, a sequence of a service failure followed by a poor recovery (Bitner, Booms, &



Tetreault, 1990). Specifically, we offer insights into three core and unstudied issues:

1. How do different forms of questionnaires influence customer revenge responses over time? In other words, can expressive writings and pre-formatted surveys attenuate customer revenge responses?
2. If so, which content of questionnaires (i.e., cognitions only, emotions only, both cognitions and emotions) reduce customer revenge responses?
3. Is there a specific form and content of questionnaire that can promote reconciliation over time?

Given the profitability of reducing customer revenge responses (Grégoire & Fisher, 2008; Grégoire, Laufer, & Tripp, 2010; Grégoire, Tripp, & Legoux, 2009; Joireman, Grégoire, Devezer, & Tripp, 2013; Tripp, Grégoire, & Business, 2011), firms need to learn inexpensive solutions to reduce customer revenge responses. The current research posits that a specific form and content of mere-measurement—the effect of asking questions to a participant— can influence customer revenge responses cognitively and emotionally over time. Previous research has shown that asking questions, which refers to the mere-measurement effect, can change the respondent's attitude and propensity to engage in a specific behavior (e.g., Fitzsimons & Morwitz, 1996; Morwitz & Fitzsimons, 2004; Sherman, 1980; Sprott et al., 2006). Despite recent progress of mere-measurement effects on customer behaviors (Morwitz, Johnson, & Schmittlein, 1993; Fitzsimons & Morwitz, 1996), the effect of mere-measurement on customer revenge and reconciliation responses over time remains unexplored.

In light of a potential effect of mere-measurement, our research questions become important. First, we need to know what forms of questions can attenuate customer revenge responses. Expressive writings—a mere-measurement method that asks open-ended questions allowing self-expression through writing about negative experiences (Lepore, Greenberg, Bruno, & Smyth, 2002)— are a form of questions in which the customers could play an active role in mitigating their negative feelings toward a double deviation. The current research aims to explore the effects of expressive writings in a consumer context. We assume that expressive

writings would allow aggrieved customers to actively think about the negative incident and their related emotions. This will help them to restructure the negative events in their mind rather than inhibiting their thoughts and emotions. This process should lead to a catharsis effect—an emotional purification that occurs following the experience—that would mitigate customers' negative thoughts and feelings during the revenge process, and consequently increase their sense of reconciliation.

Another form of question that could possibly help customers to play an active role in managing their revenge responses is answering pre-formatted surveys. Such an effect has been previously observed in other facets of consumer behaviors under the label mere-measurement effect (Fitzsimons & Morwitz, 1996). Based on this effect, the current research suggests that customers answering a series of pre-formatted surveys over time regarding a double deviation could enjoy the same catharsis benefit as expected as for expressive writings. In the context of a double deviation, this effect remains to be confirmed. Thus, we examine different forms (i.e., expressive writing vs. pre-formatted surveys) of questionnaires over time to learn which one is more effective to reduce revenge responses (e.g., inferred negative motives, feeling of betrayal, anger, desire for revenge and desire for avoidance) and promote desire for reconciliation.

Second, we manipulate the content of the questions (i.e., cognitions only, emotions only, both cognitions and emotions) to understand the extent to which content influences customer revenge responses. Experiencing a double deviation requires high level of cognitive processing to determine why an unfairness occurred and who should be blamed (Strizhakova, Tsarenko, & Ruth, 2012). It also involves customers emotionally in a way that most aggrieved customers express anger and rage (Chebat & Slusarczyk, 2005). Hence, we argue that the contents of questionnaires that allow customers to both cognitively think about the unfairness and express their negative emotions reduce revenge responses. As some evidence shows that revenge responses involve intense cognitions and emotions (Bonifield & Cole, 2007; Grégoire et al., 2009; McCullough, Fincham, & Tsang, 2003), we should ask questions that incite aggrieved customers to vent their spiteful thoughts and emotions over time and motivate them to forgive the firm. Thus, the

differentiated effects of forms and contents of questionnaires over time constitute the baseline effects of our research and our contributions.

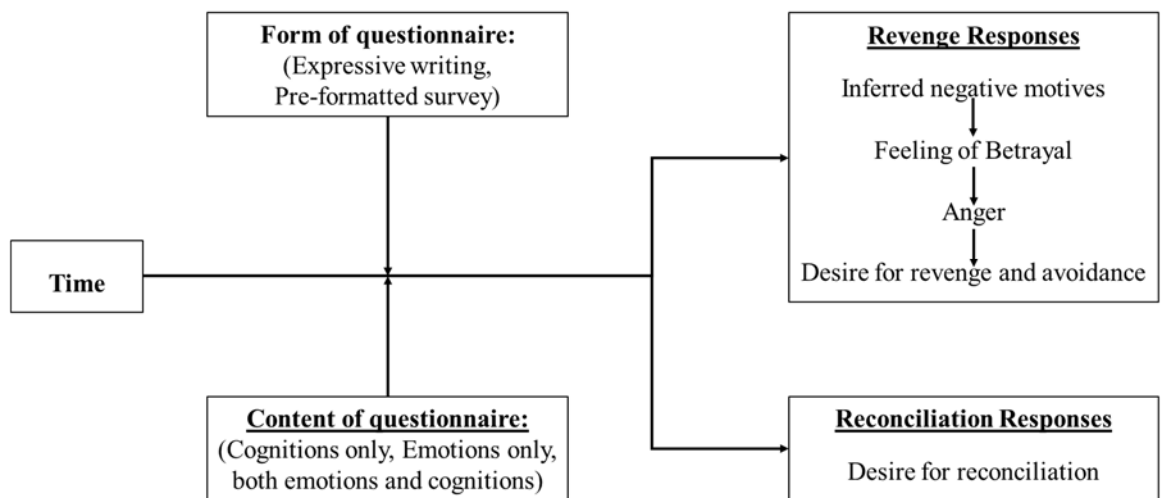
The third contribution of this research is the effect of mere-measurement (i.e., different forms and contents of questionnaires) over time on customers' desire for reconciliation following a double deviation. Desire for reconciliation refers to a customer's willingness of accepting a firm's failure in the hope of maintaining a relationship and continuing his or her acts of goodwill toward the firm (Aquino et al., 2006). Based on previous research, there is a distinction and a small correlation between desire for revenge and desire for reconciliation (Joireman et al., 2013). On the one hand, desire for revenge and desire for reconciliation are counterintuitively correlated (Joireman et al., 2013; Tripp & Bies, 2009). For instance, it is possible for a customer to have desire for revenge toward a firm and also seek for reconciliation to "get on with business" (Tripp & Bies, 2009). On the other hand, desire for revenge is contrary to desire for reconciliation (Joireman et al., 2013). Less desire for revenge makes forgiveness more likely and consequently leads to higher level of desire for reconciliation (Joireman et al., 2013; Tripp & Bies, 2009). In consideration of a potential effect of mere-measurement on customer revenge responses, it is worth knowing how it could be possible to promote desire for reconciliation on aggrieved customers. Thus, this research examines the effects of different forms and contents of questionnaires on the customers' desire for reconciliation over time.

The rest of the article is organized as follows. First, we develop the hypotheses related to the three issues. Then, we test the hypotheses with a longitudinal field experiment of real online complainers who experienced a double deviation. Finally, we conclude with results, theoretical and managerial contributions and some avenues for further research.

### **3.3. Conceptual background**

In this section we first discuss the possible effects of expressive writings and pre-formatted surveys on customer revenge and reconciliation responses over time following a double deviation. Second, we discuss the effects of various contents of questionnaires (i.e., emotional vs. cognitive) on revenge and reconciliation responses over time. This research argues that a specific form and content of questionnaire can effectively help customers to reduce their negative thoughts and emotions over time regarding a double deviation they had experienced. This assumption is established based on previous evidence that shows mere-measurement such as expressive writings can reduce negative emotions and thoughts in traumatic life events (Spera, Buhrfeind, & Pennebaker, 1994). We consider that mere-measurement could be effectively applied to experience of a double deviation because of the similarities between double deviations and many negative incidents and justice violations. Since experiences of double deviations often require cognitive processing and involve customers emotionally (Bechwati & Morrin, 2003), asking questions about customers' cognitions and emotions can be relevant.

**Figure 3-1. Conceptual framework**



### 3.3.1. The process model of customers' responses to double deviation

The conceptual model of the present research is established on a review of previous models of customer responses to double deviations (e.g., Joireman et al.,

2013; Lazarus, 1991; Zourrig, Chebat, & Toffoli, 2009) shown in Figure 3-1. The model posits that experiencing a service failure followed by a poor recovery requires a high level of cognitive processing (Barclay & Skarlicki, 2009) such as inferred negative motives (Campbell, 1999; Joireman et al., 2013; Reeder, Kumar, Hesson-McInnis, & Trafimow, 2002).

Inferred negative motives refers to a customer's beliefs that a firm intentionally tried to take advantage of the customer in favor of maximizing its own interests (Campbell, 1999; Reeder et al., 2002). Consequently, the inferred negative motives towards a firm is associated with a customer feeling of betrayal (Grégoire & Fisher, 2008) and anger (Joireman et al., 2013). Betrayal is defined as a customer's belief that a firm has intentionally violated what is normative in the context of a relationship (Elangovan & Shapiro, 1998; Koehler & Gershoff, 2003). The feeling of betrayal refers to a customer's inability to "let go" (Bies & Tripp, 1996; Grégoire et al., 2009). Anger as a strong negative emotion refers to an impulse in response to the source of anger e.g., a double deviation in this case (Bougie, Pieters, & Zeelenberg, 2003; McColl-Kennedy, Patterson, Smith, & Brady, 2009). A customer's feeling of anger may drive him or her to a vivid desire for revenge and desire for avoidance that engage a customer in retaliatory behaviors such as vindictive complaining, third-party complaining for publicity and negative word of mouth (Grégoire & Fisher, 2008). Desire for revenge that has been mostly studied in consequence of a poor service recovery is defined as the extent to which a customer's motivation to punish a firm and brings the firm down in response the harm it has caused (Bechwati & Morrin, 2003; Grégoire & Fisher, 2008; McCullough, 2008). Desire for avoidance refers to customer's motivation to call off and withdraw all interactions and psychological contacts with the firm (Grégoire et al., 2009; McCullough et al., 1998).

### **3.3.2. Relating the forms of questionnaires to a double deviation experience**

The mere-measurement, also known as question-behavior effects, started to be examined in the 1980s. Sherman (1980) refers to the question-behavior effect as "self-erasing nature errors of prediction" which explains that individuals

overestimate the probability of being involved in desirable behaviors (e.g., volunteering for the American Cancer Society), whereas they underestimate the probability of engaging in undesirable behaviors (e.g., singing the Star Spangled Banner over the phone). Later, Greenwald, and his colleagues (1987) show that asking questions about the likelihood to participate and vote in an election increases the actual voting behaviors. Mere-measurement effect simply argues that behaviors can be changed by questioning a person (Sprott et al., 2006). The current research considers expressive writings and pre-formatted surveys as two different forms of mere-measurement and examines how different forms of mere-measurement can influence customer revenge and reconciliation responses over time.

### **3.3.2.1. Expressive Writings**

The concept of expressive writings has been initially studied in the mid-1980s. Pennebaker and Beall (1986) show that writing about both the cognitions and emotions regarding a traumatic event reduced the number of health center visits in the six months following the experiment. The typical expressive writings involved participants who were asked to disclose their emotions and thoughts about the most negative or stressful event of their lives in 20 minutes session over several consecutive days (e.g., “write about your deepest thoughts and feelings about a trauma”) (Pennebaker, 1989; Sloan & Marx, 2004). Since then, the expressive writing paradigm has been studied in several domains such as traumatic life events (i.e., death of loved one, childhood sexual abuse, bereaved adults, and prison inmates) (Pennebaker, 1993; Richards, Beal, Seagal, & Pennebaker, 2000; Sloan & Marx, 2004; Stroebe, Stroebe, Schut, Zech, & van den Bout, 2002), organizational injustice (i.e., individuals who recently lost their job, aggrieved employees who experience organizational injustice) (Spera et al., 1994; Barclay & Skarlicki, 2009), and physical illnesses (i.e., individuals diagnosed with asthma or rheumatoid arthritis, patients who have cancer) (de Moor et al., 2002; Smyth, Stone, Hurewitz, & Kaell, 1999). In general, the results of the above mentioned research show that writing about a stressful experience improves physical or psychological health. For instance, written disclosure improves the students’ classroom performance and their

life satisfaction (Pennebaker, Colder, & Sharp, 1990) as it also motivates individuals who lost their job to seek for a new job and become an employee more quickly (Spera et al., 1994). However, to the best of our knowledge, the potential effects of expressive writing have never been examined in a consumer transgression context.

Scholars elaborate three theoretical statements regarding the beneficial effects of expressive writings: a) emotional inhibition, b) emotional processing, and c) cognitive adaptation (Sloan & Marx, 2004). Emotional inhibition statement argues that suppressing emotions results in psychological disorders (e.g., distress) and physical illnesses (e.g., hypertension and coronary heart disease) (de Moor et al., 2002; Steptoe & Vögele, 1986). In contrary, disclosing emotions through expressive writing reduces inhibition side effects such as stress and improves health (Pennebaker, 1989). Emotional processing statement discusses repeatedly-expressing emotions through several writing sessions, allowing individuals to properly process the information and actively thinking about the experience. In consequence, individuals can restructure the negative experience in their mind and gain additional insight by focusing on the central features of the problem instead of being overwhelmed by the irrelevant issues (Barclay & Skarlicki, 2009; Pennebaker, 1997; Sloan & Marx, 2004). Cognitive adaptation statement argues that expressive writings allow individuals to re-confront the negative experience and re-establish a new conceptual system in which may not have been developed initially (Sloan & Marx, 2004). Accordingly, individuals gain a new insight to reprocess the negative event that may reduce stress (Pennebaker & Beall, 1986; Pennebaker et al., 1990).

This research examines whether expressive writings can be effectively applied to reduce customer's negative cognitions and feelings following a double deviation. This proposition is unexplored throughout previous works to the best of our knowledge. We are interested to find the answer for this question for two reasons. First, service failures and recoveries are becoming more common (Bechwati & Morrin, 2003; McColl-Kennedy et al., 2009). Thus, the likelihood that customers experience anger is increased (McColl-Kennedy et al., 2009). For

instance, the *Entrepreneur* magazine in 2005 reported that American customers were getting angrier each year and complained twenty four percent more than the previous year (McColl-Kennedy et al., 2009; Penttila, 2005). The increasing number of customers' anger occurrences in the service settings is a strong evidence of the major inconvenience that customers may tolerate when they encounter unfairness. Previous research in service marketing posits that customer anger not only negatively affects service firms (e.g., damaging firm' property, attacking service employees, paying legal fees and penalties) (Bechwati & Morrin, 2003; McColl-Kennedy et al., 2009; Tax, Brown, & Chandrashekar, 1998), but also is physically and psychologically harmful for customers themselves (Harris & Reynolds, 2004; McColl-Kennedy et al., 2009). Second, we think that applying expressive writings in the consumer context might be useful because experiencing a double deviation may have similar negative side effects as any traumatic experiences (e.g., traumatic life events, organizational injustice, and physical illnesses). Experiencing a double deviation involves customers emotionally and also requires a high level of cognitive processing (Barclay & Skarlicki, 2009). Aggrieved customers often describe their negative feelings by expressing anger and rage (McColl-Kennedy et al., 2009; Nguyen & McColl-Kennedy, 2003). They determine the cognitive processing by seeking the reason behind an unfair situation and recognizing who is responsible for the unfairness.

#### **3.3.2.2. Pre-formatted Surveys**

Mere-measurement effects, which refers to the effect of posing questions to a participant have been studied in a plethora of domains such as changing mood (Schwarz & Clore, 1983), marketing and consumer (Morwitz et al., 1993) and brand marketing (Fitzsimons & Morwitz, 1996) in an effort to replicate and extend the previous findings. For instance, Morwitz et al. (1993) show that asking customers questions about purchasing a specific car enhances the actual purchasing of that car. In general, scholars develop two main explanations regarding question-behavior effects on changing respondents' future behaviors (Fitzsimons & Morwitz, 1996; Morwitz & Fitzsimons, 2004; Sherman, 1980). First, some scholars argue that



asking questions facilitates the attitudes towards the specific behaviors (Fitzsimons & Morwitz, 1996; Morwitz & Fitzsimons, 2004). Second, other researchers explain that asking questions about social norms reminds respondents of the inconsistency between their beliefs and behaviors, which in turn motivates them to change their behaviors in a way that is consistent with their attitudes (Spangenberg & Greenwald, 1999; Sprott, Spangenberg, & Fisher, 2003). This research examines the effects of pre-formatted surveys as a form of mere-measurement on customer's revenge responses over time.

Consistent with prior research (e.g., Fitzsimons & Moore, 2008; Fitzsimons & Morwitz, 1996; Sprott et al., 2006) the current research posits that asking respondents questions about a past double deviation experience could change their future thoughts (e.g., inferred negative motives), emotions (e.g., betrayal, anger), and desires (i.e., desire for revenge, desire for avoidance, and desire for reconciliation). More specifically, we argue that asking questions may have a catharsis "calming effect" on customers' negative thoughts and feelings. Catharsis "calming effect" is defined as an emotional purification as a result of experiencing strong feelings of sorrow, fear or pity (Bushman, Baumeister, & Stack, 1999; Wegman, 1985). In other words, answering pre-formatted surveys is effective in mitigating customer revenge responses because it allows individuals to cognitively process the unfair experience, express their feelings and gain an additional insight toward the unfairness (Barclay & Skarlicki, 2009).

### **3.3.3. Relating the contents of questionnaires to a double deviation experience**

In this research, we explore the effects of different contents of questionnaires based on the previous model of customer responses to a double deviation (e.g., Joireman et al., 2013; Lazarus, 1991; Zourrig et al., 2009). As noted earlier, this model argues that experiencing a double deviation requires a high level of customer's cognitive processing such as inferred negative motives (Campbell, 1999; Joireman et al., 2013; Reeder et al., 2002) and emotionally involves a customer (e.g., betrayal and anger). A feeling of anger may drive a customer to a desire for revenge and avoidance (Grégoire & Fisher, 2008). As a result, a higher

level of desire for revenge and avoidance may lead a customer to have lower level of desire for reconciliation (Joireman et al., 2013; McCullough, 2008). So, we argue that the content of questionnaires that involve customers both emotionally and cognitively can effectively reduce a customer's revenge responses more than those questionnaires that involve a respondent only emotionally or only cognitively.

According to cognitive change theory, individuals try to match the stressful experience with their existing conceptual systems or their inner models (Horowitz, 1997; Janoff-Bulman, 2010). More specifically, when individuals face a stressful experience they try to either solve the problematic event, or they should re-establish a new inner model that can be matched with the negative event (Horowitz, 1997). Prior research shows that repeated written disclosures help individuals to reorganize and re-establish their thoughts in a way that would be more coherent with their inner models (Pennebaker, 1997; Smyth, True, & Souto, 2001). It also helps individuals to express their emotions (Pennebaker et al., 1990; Pennebaker, 1990, 1997; Spera et al., 1994). Adapting the same logic into the consumer context, the current research examines how expressing both cognitions and emotions through answering questionnaires helps aggrieved customers making coherency between their thoughts and feelings, and the negative service experience, view a double deviation more objectively and gain insight into cognitive assimilation of the double deviation. As we proceed, we present the hypotheses based on the effects of expressive writings and pre-formatted surveys on the customer revenge responses.

#### **3.3.3.1. Cognitive dimension of customer's responses to a double deviation (i.e., inferred negative motives)**

Customers cognitively infer firms' negative motives through their opportunistic actions or intentional uncaring treatments (Grégoire et al., 2010; Joireman et al., 2013). Drawing on the previous model of customer responses to a double deviation (e.g., Joireman et al., 2013; Lazarus, 1991; Zourrig et al., 2009), such negative motives constitute a cognition which is rooted in a consumer's mind and beliefs. Thus, in a consumer context we can argue that expressing both thoughts and emotions through expressive writing helps aggrieved customers to re-organize

their thoughts in a way that they can make a coherency between their thoughts and the double deviation. This, in turn, increases the likelihood of customers viewing the negative motives more objectively, and gaining insight into cognitive assimilation of a double deviation, and as a result, reducing inferred negative motives.

**H1a:** Customers' expressive writings about both cognitions and emotions regarding a double deviation experience over time is associated with *less* inferred negative motives than expressive writings about only cognitions or only emotions over time.

On the other hand, Smyth et al. (2001) show that individuals who express their thoughts and feelings in a narrative form reported less illness compared with those individuals who express their thoughts and emotions in a fragmented manner (e.g., lists their emotions, thoughts, and sensations regarding to the negative experience). They argue that elicitation of negative cognitions may not happen when people only list their thoughts and feelings about a traumatic event in a fragmented manner (Sloan & Marx, 2004; Smyth et al., 2001). A pre-formatted survey about both cognitions and emotions could possibly work in a similar way as expressing thoughts and feelings in a fragmented manner. So, we predict that it is improbable to change inferred negative motives when customers answer a series of pre-formatted surveys over time. As customers perception of firm's negative motives is rooted in their mind and become a conscious belief, answering a list of questions about their thoughts and emotions may not provide the opportunity for them to reorganize their thoughts and gain a new insight toward the double deviation. Moreover, we do not expect much catharsis effect on a cognitive variable such as inferred negative motives as the catharsis effect basically refers to an extreme emotional purification (Wegman, 1985). Hence, the two below hypotheses are suggested:

**H1b:** Answering pre-formatted surveys about both cognitions and emotions regarding a double deviation experience over time does not change customers' inferred negative motives more than answering pre-formatted surveys about

cognitions only or emotions only over time.

**H1c:** Expressive writings regarding a double deviation experience decrease customers' inferred negative motives more than answering pre-formatted surveys about a double deviation experience over time.

### **3.3.3.2. Emotional dimension of customer's responses to a double deviation (i.e., betrayal and anger)**

Research on emotion regulations show that inhibited negative emotions lead to physical diseases such as hypertension, coronary heart disease (Booth-Kewley & Friedman, 1987; Kivimäki et al., 2005), and progression and onset breast cancers (Stanton et al., 2000). Prior research demonstrates that disclosing both thoughts and feelings are more effective in improving physical and psychological well-being rather than writing only about either emotions or thoughts (Pennebaker & Beall, 1986; Pennebaker, 1997; Smyth et al., 1999). Having a chance of venting emotions and expressing thoughts facilitate disclosing inhibited emotions and lead to reduce stress and improve well-being (Pennebaker, 1989). Applying the same logic to the consumer context, we predict that writings about both thoughts and emotions regarding an unfair double deviation experience allow aggrieved customers to express their inhibited negative emotions such as feeling of betrayal and anger. We also suggest that expressive writings about both thoughts and emotions would be associated with less feeling of betrayal and anger compared with expressive writing about only emotions or only cognitions.

**H2a:** Customers' expressive writings about both cognitions and emotions regarding a double deviation experience over time is associated with *less* feeling of betrayal than expressive writings about only cognitions or only emotions over time.

**H3a:** Customers' expressive writings about both cognitions and emotions regarding a double deviation experience over time is associated with *less* feeling of anger than expressive writings about only cognitions or only emotions over time.

Drawing on catharsis healing effect that is associated with an extreme emotional purification (Wegman, 1985), we expect that consumers' extreme negative emotions such as betrayal and anger reduce more quickly over time when they express both their thoughts and emotions via series of questionnaires. In other words, answering pre-formatted surveys or expressive writings concerning both thoughts and feelings allow aggrieved customers to vent their negative emotions and consequently enjoy the catharsis effect of venting emotions.

**H2b:** Customers' answering pre-formatted surveys about both cognitions and emotions regarding a double deviation experience over time is associated with *less* feeling of betrayal than answering pre-formatted surveys about only cognitions or only emotions over time.

**H3b:** Customers' answering pre-formatted surveys about both cognitions and emotions regarding a double deviation experience over time is associated with *less* feeling of anger than answering pre-formatted surveys about only cognitions or only emotions.

According to cognitive change theory, expressive writings help people to reorganize their thoughts about upsetting events and traumatic life experiences and make a meaningful narrative approach about the events in their lives (Graybeal, Sexton, & Pennebaker, 2002; Pennebaker & Seagal, 1999). Exploring the effects of story-making which is a creation of meaningful narrative writing about traumatic life events, show enough evidence of promoting people's health benefits (de Moor et al., 2002; Graybeal et al., 2002). Previous research show that expressing thoughts and emotions in a narrative way will lead to less illness and more well-being compared to just listing emotions and thoughts regarding to the negative experience (Smyth et al., 2001). Although the effects of pre-formatted surveys and expressive writings have never been directly tested in a consumer context, we can assume that aggrieved customers who make expressive writings should report less negative emotions over time compare to those who answered series of questionnaires in pre-formatted surveys.

**H2c:** Expressive writings regarding a double deviation experience decrease

customers' feeling of betrayal more than answering pre-formatted surveys about a double deviation experience over time.

**H3c:** Expressive writings regarding a double deviation experience decrease customers' feeling of anger more than answering pre-formatted surveys about a double deviation experience over time.

### **3.3.3.3. Desire dimensions of customer's responses to a double deviation (i.e., desires for revenge, avoidance and reconciliation)**

In the consumer context, desire for revenge or intention to retaliate refers to customers' motivation of causing some harms to the service provider and bringing the firm down in response to an extremely negative purchase experience (Bechwati & Morrin, 2003; Grégoire & Fisher, 2008; Grégoire et al., 2009). Another construct that reflects customers' grudge and lack of forgiveness is desire for avoidance which refers to customers' being willing to call off all interactions and psychological contacts with the firm because of the harm a firm has caused (Grégoire et al., 2009; McCullough et al., 1998). Barclay and Skarlicki (2009) initially consider the effects of expressive writings intervention on employees' intention to retaliate in a domain of organizational justice. They find that expressive writings about both emotions and thoughts regarding an unfair work experience reduce retaliation intentions more than writing only about cognitions or emotions. That is because both cognitions and emotions are the antecedents of intention to retaliate, the expressive writings about both thoughts and feelings can reduce those dimensions through emotional processing and cognitive adaptation theory (Barclay & Skarlicki, 2009; Graybeal et al., 2002). First, expressive writings allow individuals to vent their emotions and since the negative emotions released, individuals have fewer tendencies to retaliate. Second, expressive writings allow individuals to become more objective, gain more insight toward the problem and cognitively process the negative event. Taken together, writing about both thought and emotions results in fewer individuals' intentions to retaliate (Barclay & Skarlicki, 2009). Applying the same logic in consumer context, we can argue that because both emotional and cognitive dimensions are considered in expressive writings, aggrieved customers who write

about both their feelings and their thoughts are expected to report lesser desire to revenge and avoidance than those who write only about their emotions or thoughts.

**H4a:** Customers' expressive writings about both cognitions and emotions regarding a double deviation experience over time is associated with *less* desire for revenge than expressive writings about only cognitions or only emotions over time.

**H5a:** Customers' expressive writings about both cognitions and emotions regarding a double deviation experience over time is associated with *less* desire for avoidance than expressive writings about only cognitions or only emotions over time.

Using the same logic and also based on catharsis healing effect, we argue that answering a series of pre-formatted surveys about both thoughts and feelings can have the similar results as expressive writings. In other words, answering a series of cognitive and emotional pre-formatted surveys can reduce both cognition and emotion dimensions of desire for revenge and avoidance. Because both emotional and cognitive questions are activated in the pre-formatted survey questionnaires, customers have the potential to vent their negative emotions and gain a broader perspective toward a double deviation.

**H4b:** Customers' answering pre-formatted surveys about both cognitions and emotions regarding a double deviation experience over time is associated with *less* desire for revenge than answering pre-formatted surveys about only cognitions or only emotions over time.

**H5b:** Customers' answering pre-formatted surveys about both cognitions and emotions regarding a double deviation experience over time is associated with *less* desire for avoidance than answering pre-formatted surveys about only cognitions or only emotions.

Accordingly, we argue that customers who make expressive writings should report less desire for revenge and avoidance over time compared to those who answered series of pre-formatted surveys.

**H4c:** Expressive writings regarding a double deviation experience decrease customers' desire for revenge more than answering pre-formatted surveys about a double deviation experience over time.

**H5c:** Expressive writings regarding a double deviation experience decrease customers' desire for avoidance more than answering pre-formatted surveys about a double deviation experience over time.

### **3.3.3.3.1. Desire for reconciliation**

In the consumer context, desire for reconciliation refers to a customer's willingness to accept a firm's failure in a hope of maintaining the relationship and continuing his or her acts of goodwill toward the firm (Aquino et al., 2006). Customers' desire for reconciliation is counterintuitively correlated to the customers' desire for revenge as it also is in contrast to desire for revenge (Joireman et al., 2013; Tripp & Bies, 2009). In other words, reducing customers' desire for revenge makes the chance of promoting customers' desire for reconciliation more plausible (Joireman et al., 2013; Tripp & Bies, 2009). We argue that expressive writings and pre-formatted surveys about both thoughts and feelings over time can increase customers' desire for reconciliation in a same logic that they can reduce customers' desire for revenge. So, we suggest:

**H6a:** Customers' expressive writings about both cognitions and emotions regarding a double deviation experience over time is associated with *more* desire for reconciliation than expressive writings about only cognitions or only emotions over time.

**H6b:** Customers' answering pre-formatted surveys about both cognitions and emotions regarding a double deviation experience over time is associated with *more* desire for reconciliation than answering pre-formatted surveys about only cognitions or only emotions over time.

Accordingly, we argue that aggrieved customers who make expressive writings should report more desire for reconciliation over time compare to those who answered a series of pre-formatted surveys.



**H6c:** Expressive writings regarding a double deviation experience increase customers' desire for reconciliation more than answering pre-formatted surveys about a double deviation experience over time.

### **3.4. Methodology**

#### **3.4.1. Method**

This research uses a retrospective experience methodology to explore the effect of different forms and contents of questions over time on customer revenge and reconciliation responses. This methodology is commonly used in prior research that aimed at exploring customers' emotional and behavioral responses to service failures (Aquino, Tripp, & Bies, 2001; Grégoire et al., 2010, 2009; Tax & Brown, 1998). As this research emphasizes on asking respondents structured questions about their emotions, and thoughts regarding a specific incident, this methodology is appropriate and lets us use suitable statistical tests.

#### **3.4.2. Context**

We examined this research in collaboration with ConsumerAffairs.com which is an online third party review website. ConsumerAffairs.com is a consumer advocacy and reviews organization founded in 1998 aims at protecting consumers as an “independent consumer news center”. It is a credible and professionally managed website with thousands of subscribers and reviewers (Grégoire et al., 2010, 2009). The website includes customer reviews, customer news and recall information. In addition, it posts online complaints and encourages customers to take public actions only if their recovery efforts fail. So, all their received complaints should involve a “double deviation”.

#### **3.4.3. Design questionnaire**

This research was conducted as a longitudinal field experiment. Given the nature of the expressive writings method which should be applied repetitively (see Barclay & Skarlicki, 2009; Lepore et al., 2002; Lepore & Smyth, 2002; Spera et al.,

1994) and also our interest in comparing the effects of expressive writings vs. pre-formatted surveys forms of questionnaires over time, a longitudinal field experiment was required. In addition, longitudinal field experiments are effective in drawing causal inference (e.g., Bolton & Lemon, 1999; Pearl, 2009) and controlling common method bias (e.g., Podsakoff, MacKenzie, Lee, & Podsakoff, 2003) as they also address the limitations of cross sectional designs (e.g., Aquino et al., 2001; Grégoire et al., 2009).

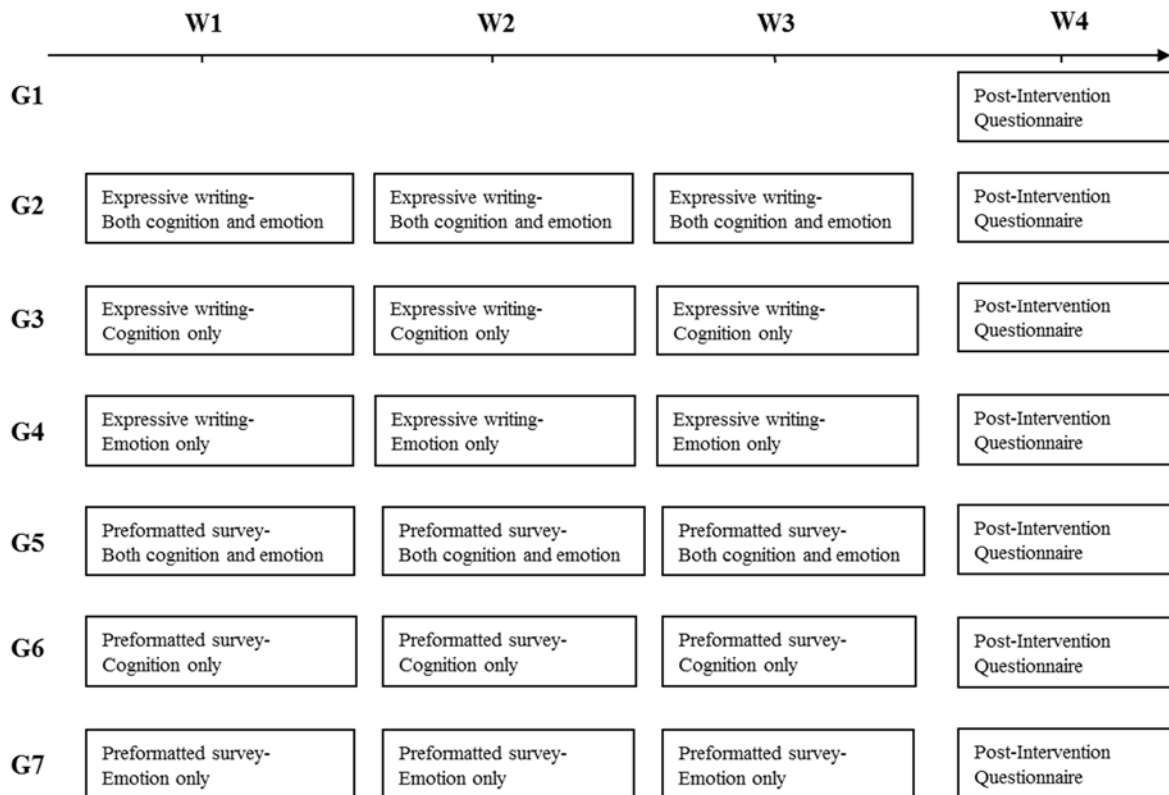
The current research involves a series of three questionnaires (i.e., three waves) that were administered every week (see McCullough, Bono, & Root, 2007) plus a post-intervention questionnaire that was administered at wave 4. It includes measures of revenge and reconciliation responses (See Figure 3-2). We have access to the online complainers who sent an online complaint to the ConsumerAffairs.com since two and a half months preceding the first questionnaire. We used this short time between the online complaint and the first questionnaires because we wanted to reduce memory bias and have a sufficient number of respondents.

The design of this research was a 2 by 3 full factorial design in which there were two forms of questionnaire (pre-formatted surveys vs. expressive writings) compared by three types of content (cognitions only, emotions only, both cognitions and emotions), plus a post-intervention questionnaire at wave 4 where all respondents answered a questionnaire including measures of revenge and reconciliation responses. We had seven conditions in total and each condition was performed in four waves of time, administered every week over a month period. Figure 3-2 illustrates the instruction map of this longitudinal field experiment.

The initial sampling frame was composed of 12021 complainers. First, the potential respondents were randomly assigned to one of the seven conditions (1718 respondents per condition) in which they wrote or answered a survey about (a) their thoughts (b) their emotions (c) both their emotions and their thoughts for about 15 minutes concerning the double deviation they experienced and sent a review to ConsumerAffairs.com. Second, the potential respondents received an invitation e-mail to complete the first questionnaire via Qualtrics.com. This initial e-mail was

followed by two reminders every two days in each week. The two reminders approach has been used for waves 2-4, similarly. Then, respondents were requested to recall the double deviation they experienced which led them to write a review to ConsumerAffairs.com and answered the questions accordingly during the entire study.

**Figure 3-2. Instruction map**



**Conditions: G1-G7**

**Waves: W1-W4**

Respondents of the first condition, which was a control condition (G1), involved in a single post-intervention questionnaire that was sent only at the end of the month (wave 4) and respondents' revenge and reconciliation responses have been measured (See Table 3-1). At wave 4, all of the respondents answered a post-intervention questionnaire including the measures of the revenge and reconciliation responses (i.e., cognitions, emotions, desires and behaviors). The respondents who qualified and completed the four waves were included in a drawing for one of six iPad mini's. The standard instruction of this research is the same as previous

research (e.g., Barclay & Skarlicki, 2009; Spera et al., 1994); meanwhile, it is adapted to a double deviation.

*Expressive writing conditions (G2-G4).* Respondents in “expressive writing of both emotion and cognitions” condition (G2) were asked to express their feelings and thought regarding an unfair experience. They were asked to explore both their feelings and thoughts surrounding double deviation that affected their emotions and occupied their minds (see the Appendix 2).

Respondents in “expressive writing cognition only” condition (G3) have been asked to write about their thoughts surrounding an unfair service experience. They have been asked to write only about their deepest thoughts that occupy their minds and not explore their emotions at all (see the Appendix 2).

Respondents in “expressive writing emotion only” condition (G4) are asked to write about “an extremely emotional unfair service experience”. They have been asked to write only about their emotions and feelings regarding the unfair service experience that has affected their deepest emotions. They also have been asked to not explore their thoughts or beliefs at all in this specific condition (see the Appendix 2).

*Preformatted survey conditions (G5-G7).* Respondents in the pre-formatted survey conditions (G5-G7) have been asked to answer a series of four wave questionnaires depending on the content of the survey (i.e., cognitions only, emotions only, both cognitions and emotions) to which they have been randomly assigned (see the Appendix 2). Each of the survey questionnaires contains three parts: a) description of the failure; b) emotional, cognitive, or both emotional and cognitive parts; c) personal information. The former and the latter parts are the same among the all three survey conditions. The initial part includes questions that require respondents to briefly explain the unfair service experience they reported to ConsumerAffairs.com and why they decided to take public actions. Then, they were asked whether someone from the firm wrote a rebuttal in response to their report and was the unfair service experience resolved to their satisfaction. Finally, this part is completed by asking respondents whether they gave up on having it resolved to

their satisfaction (see the Appendix 2).

#### **3.4.4. Measures**

All measures have been drawn from current scales used in previous psychometric testing. We used same questions for survey questions with minor adjustment to the wording of the items based on the context of the research. Unless otherwise noted, all the constructs are measured with multi-item scales, and with seven point Likert scales (scale end points: 1= strongly disagree to 7 = strongly agree).

In the second part of the pre-formatted surveys, respondents answered questions in the context of double deviation that include a) only their cognitive aspects b) only their emotional aspects; c) both their cognitive and emotional aspects depending on the conditions that they have been randomly assigned.

Respondents of the “survey of both emotions and cognitions” condition (G5) answered a series of questions about their current thoughts and feelings regarding the double deviation they had experienced. Respondents answered questions regarding their perceptions of interactional, distributive, and procedural justice (Oliver & Swan, 1989; Tax et al., 1998), inferred blame (Maxham & Netemeyer, 2002), negative motives (Campbell, 1999; Reeder, Pryor, Wohl, & Griswell, 2005), responsiveness (Zeithaml, Berry, & Parasuraman, 1988) and disconfirmation (Bhattacharya, Rao, & Glynn, 1995). They also answered to a series of questions about their current emotions such as anger (Richins, 1997; Shaver, Schwartz, Kirson, & O’connor, 1987), rage (McColl-Kennedy et al., 2009), sadness and regret (Richins, 1997), their trust and commitment (Morgan & Hunt, 1994), betrayal (Grégoire & Fisher, 2008) , rejection (MacDonald & Leary, 2005) and longing (MacInnis & Chun, 2007).

Respondents of the “survey cognitions only” condition (G6) answered a series of questions only about their current thoughts regarding the double deviation. They answered questions regarding the procedural, interactional, and distributive fairness according to the equity theory adapted in service literature (Oliver & Swan,

1989; Smith, Bolton, & Wagner, 1999; Tax et al., 1998). Justice means the appropriateness of decisions and is usually considered as a cognitive concept (Chebat & Slusarczyk, 2005). Respondents also answered questions regarding firm's controllability (i.e., blame and attribution) over an unfair service experience as an "only cognitions" content of the survey. The construct includes a 3-item scale developed by Maxham & Netemeyer (2002). Respondents also answered questions regarding their inferred negative motives using a measure adapted from Campbell (1999) and Reeder et al. (2005). They also answered to the questions that measure locus of causality, stability and controllability, adapted from the causal dimension scale (Russell, 1982), responsiveness (Zeithaml et al., 1988) and disconfirmation (Bhattacharya et al., 1995; Oliver & Swan, 1989) (See Table 3-1).

Respondents of the "survey emotions only" condition (G7) answered a series of questions only about their current negative emotions. The measures include respondents' trust and commitment (Morgan & Hunt, 1994), betrayal (Grégoire & Fisher, 2008), rejection (MacDonald & Leary, 2005), longing (MacInnis & Chun, 2007) and emotional attachment (Thomson, MacInnis, & Whan Park, 2005). We also assessed respondents' current negative emotions such as anger (Richins, 1997; Shaver et al., 1987), rage (McColl-Kennedy et al., 2009), sadness and regret (Richins, 1997) (See Table 3-1).

The desires for revenge, avoidance and reconciliation have been measured in "pre-formatted surveys of emotions only" condition and "pre-formatted surveys of both emotions and cognitions" condition by using measures developed by Grégoire et al. (2009) and Joireman et al. (2013) adapted from Aquino et al. (2001) and McCullough et al. (1998) (See Table 3-1).

In order to keep the validity of the research and consistency with the expressive writing questionnaires, each pre-formatted survey took about 15 minutes to be completed. Table 3-1 presents the conceptual definition and origin of key constructs. Also, it illustrates the application of each construct in each pre-formatted and post-intervention questionnaires and their related psychometric measures.

**Table 3-1. Definition and origin of constructs**

		Pre-formatted Surveys			post-intervention
	Items	Cognitions only	Emotions only	Both cognitions and emotions	
Inferred negative motives	A customer's beliefs that a firm intentionally tried to take advantage of the customer in favor of maximizing its own interests. (Campbell (1999), Joireman et al. (2013), Reeder et al. (2002)) 4	✓		✓	✓
Feeling of betrayal	A customer's belief that a firm has intentionally violated what is normative in the context of a relationship. Elangovan and Shapiro, (1998), Koehler and Gershoff, (2003) 6		✓	✓	✓
Anger	An impulse strong emotion to react and respond to the source of anger. Bougie et al. (2003), McColl-Kennedy et al. (2009) 5		✓	✓	✓
Desire for revenge	The extent to which a customer's motivation to punish a firm and brings a firm down in response the harm it has caused. Bechwati and Morrin, (2003), Grégoire and Fisher (2008), McCullough (2008) 5		✓	✓	✓
Desire for avoidance	A customer's motivation to call off and withdraw all interactions and psychological contacts with the firm. (Grégoire et al. (2009), McCullough et al. (1998)) 5		✓	✓	✓

Desire for reconciliation	A customer's willing of accepting a firm's failure in a hope of maintaining the relationship and continues his or her acts of goodwill toward the firm.	Aquino et al. (2006), Joireman et al. (2013)	5		✓	✓	✓
<b>Additional constructs:</b>							
Severity		Smith et al. (1999)	3				✓
Trust and commitment		Morgan and Hunt (1994)	4 3		✓	✓	✓
Rejection		MacDonald and Leary (2005)	4		✓	✓	✓
Longing		MacInnis and Chun (2007)	4		✓	✓	✓
Emotional attachment		Thomson et al. (2005)	4		✓		
Rage		McColl-Kennedy et al. (2009)	14		✓	✓	
Sadness		Richins (1997)	3		✓	✓	
Regret		Richins (1997)	3		✓	✓	
Fairness		Oliver and Swan, (1989),	4	✓		✓	✓
Procedural		Smith et al. (1999), Tax et al. (1998)	4				
Interactional			3				
Distributive							
Locus of causality, stability and controllability		Russell (1982)	3 3 3	✓			
Responsiveness		Zeithaml et al. (1988)	9	✓		✓	
Disconfirmation		Bhattacharya et al. (1995), Oliver and Swan (1989)	3	✓		✓	
Blame		Maxham and Netemeyer (2002)	3	✓		✓	✓



Negative word of mouth	Bonifield and Cole (2007), Joireman et al. (2013), McColl-Kennedy et al. (2009)	3				✓
Vindictive behaviors	Bonifield and Cole (2007), Joireman et al. (2013), McColl-Kennedy et al. (2009)	4				✓
Aggressive behavior	Grégoire and Fisher (2008), Grégoire et al. (2010, 2009)	4				✓
Approach behavior	Grégoire and Fisher (2008), Grégoire et al. (2010, 2009)	5				✓
Exit	Grégoire and Fisher (2008), Grégoire et al. (2010, 2009)	4				✓
Switching costs	Haj-Salem and Chebat (2013), Jones et al. (2007)	6 4				✓
Positive SC						
Negative SC						
Alternative	Sharma and Patterson (2000)	3				✓
Rumination	Nolen-Hoeksema (1991), Strizhakova et al. (2012)	4				✓

### 3.4.5. Pre-test

The questionnaires were pre-tested with 1001 online complainers of ConsumerAffairs.com. Respondents were randomly assigned to the seven conditions. Overall, 952 of complainers were from the U.S. and the rest were from

Canada, Great Britain, Singapore, South Africa, the Philippines, Albania, Australia, New Zealand, Ireland, Poland, Kenya, and Thailand. Overall, 92 people completed the pre-test questionnaires. Fifty-six percent of the respondents was female and the average age of respondents was 52.36 years ( $SD=12.44$ ). Overall, 94.2 percent of the respondents were Anglophone. Consistent with our expectations, the mean of respondents' revenge responses (i.e., inferred negative motives, betrayal, anger, desires for revenge and avoidance) was high ( $M > 3.5$ ) and the mean of respondents' reconciliation was low ( $M < 3.5$ ) (See Table 3-2). The mean of "severity" of the service failure was high ( $M \text{ severity} = 5.8$ ) and also respondents expressed high level of "exit" and "negative word of mouth" ( $M > 3.5$ ) (See Table 3-2). Cronbach's alphas were also greater than the .70 guideline suggested by Nunnally (1978) (See Table 3-2).

**Table 3-2. Descriptive statistics of constructs in the pre-test**

	M	SD	Cronbach's Alpha	N of Items
Severity	5.80	1.15684	-	1
Inferred negative motives	5.65	1.40618	.838	4
Feeling of betrayal	5.13	2.05682	.939	6
Anger	5.40	1.94830	.969	5
Desire for revenge	3.80	2.21822	.958	5
Desire for avoidance	5.30	1.69970	.890	5
Desire for reconciliation	2.43	1.38010	.743	6
Exit	5.20	1.75119	.845	4
Negative word of mouth	5.57	1.94397	.935	3

### **3.4.6. Manipulation checks**

#### **3.4.6.1. Manipulation checks in the pre-test**

We measured the cognitive vs. emotional contents in the seven conditions (i.e., G1-G7). A full factorial analysis of variance revealed that there is a significant difference between the levels of cognitive vs. emotional content of questionnaires. In other words, those randomly assigned to the emotional content questionnaires

(i.e., expressive writing of only emotions, survey of only emotions) perceived high level of emotions after they completed the questionnaire ( $M_{\text{high emotion}}=5.45$ ;  $M_{\text{low emotion}}=3.58$ ;  $F(1,71)=24.807$ ;  $P \leq .000$ ). In addition, those randomly assigned to the cognitive content conditions (i.e., expressive writing of only cognition, survey of only cognition) perceived high level of cognition after they completed the questionnaire ( $M_{\text{high cognition}}=5.00$ ;  $M_{\text{low cognition}}=3.73$ ;  $F(1,71)=7.281$ ;  $P \leq .010$ ).

In addition, the means of time for completion of questionnaires was about 15 minutes and there was no significant difference among the seven conditions ( $M_{\text{Time Duration in Minute}}=15.02$ ,  $N=81$ ;  $F(6,81)=1.849$ ;  $P > .05$ ). Table 3-3 shows the descriptive statistics of time for completion of each questionnaire in the pre-test.

**Table 3-3. Descriptive statistics of time for completion in the pre-test**

Dependent Variable: Time Duration in Minute			
Conditions	Mean	Std. Deviation	N
G1- Post-intervention questionnaire	14.78	0.436	10
G2- Expressive writing-Both cognition and emotion	14.94	0.50	9
G3- Expressive writing- Cognition only	15.24	0.26	10
G4- Expressive writing- Emotion only	15.02	0.45	11
G5- Pre-formatted survey- Both cognition and emotion	14.94	0.29	16
G6- Pre-formatted survey- Cognition only	15.03	0.44	14
G7- Pre-formatted survey- Emotion only	15.21	0.26	11
Total	15.02	0.39	81

#### **3.4.6.2. Manipulation checks in wave 1**

We did three manipulation checks, namely: “cognitive and emotional” vs. “cognitive” vs. “emotional” contents in the seven conditions (i.e., G1-G7). A full factorial analysis of variance revealed that there is a significant difference between the levels of cognitive vs. emotional content of questionnaires. In other words, consistent with our expectations, those randomly assigned to the cognitive and emotional content conditions (i.e., expressive writing of both cognitions and emotions, survey of both cognitions and emotions) perceived high levels of both cognition and emotion after they completed the questionnaire ( $M_{\text{high cognition and emotion}}=5.94$ ;  $M_{\text{low cognition and emotion}}=1.75$ ;  $F(1,610)=1524.90$ ;  $P \leq .000$ ). Also, those randomly assigned to the cognitive content conditions (i.e., expressive writing of

only cognitions, survey of only cognitions) perceived a high level of cognition after they completed the questionnaire ( $M_{\text{high cognition}}=6.20$ ;  $M_{\text{low cognition}}=1.70$ ;  $F(1,610)=1680.14$ ;  $P \leq .000$ ). Moreover, those randomly assigned to the emotional content questionnaires (i.e., expressive writing of only emotions, survey of only emotions) perceived a high level of emotion after they completed the questionnaire ( $M_{\text{high emotion}}=6.20$ ;  $M_{\text{low emotion}}=1.66$ ;  $F(1,610)=2237.860$ ;  $P \leq .000$ ). Table 3-4 shows the descriptive statistics of manipulation checks for contents among seven conditions.

**Table 3-4. Descriptive statistics of manipulation checks at wave 1**

	Conditions	Mean	Std. Deviation	N
Control_Emotion	G2-Expressive writing-Both cognition and emotion	5.42	1.910	81
	G3-Expressive writing-Cognition only	2.82	2.122	91
	G4-Expressive writing-Emotion only	<b>5.78</b>	1.582	104
	G5-Pre-formatted survey-Both cognition and emotion	6.34	1.286	106
	G6-Pre-formatted survey-Cognition only	3.68	2.185	116
	G7-Pre-formatted survey-Emotion only	<b>6.27</b>	1.458	112
	Total	5.08	2.216	610
Control_Cognition	G2-Expressive writing-Both cognition and emotion	5.57	1.795	81
	G3-Expressive writing-Cognition only	<b>6.00</b>	1.528	91
	G4-Expressive writing-Emotion only	4.37	2.256	104
	G5-Pre-formatted survey-Both cognition and emotion	6.01	1.552	106
	G6-Pre-formatted survey-Cognition only	<b>5.54</b>	1.834	116
	G7-Pre-formatted survey-Emotion only	5.38	2.102	112
	Total	5.46	1.947	610
Control_Cognition and Emotion	G2-Expressive writing-Both cognition and emotion	<b>5.62</b>	1.814	81
	G3-Expressive writing-Cognition only	3.58	2.071	91
	G4-Expressive writing-Emotion only	4.57	2.075	104
	G5-Pre-formatted survey-Both cognition and emotion	<b>6.10</b>	1.505	106
	G6-Pre-formatted survey-Cognition only	4.34	2.043	116
	G7-Pre-formatted survey-Emotion only	5.58	1.934	112
	Total	4.97	2.096	610

Moreover, the means of time for completion of questionnaires were 16.26 minutes for wave 1, 14.49 minutes for wave 2, and 13.99 minutes for wave 3. In

addition, there was no significant difference in the time for completion of questionnaires among the six conditions in each wave (i.e.,  $M_{W1Time\ Duration\ in\ Minute}=16.26$ ,  $N=833$ ,  $F(546,5)=1.659$ ;  $P > .05$ ;  $M_{W2Time\ Duration\ in\ Minute}=14.49$ ,  $N=267$ ,  $F(266,5)=2.048$ ;  $P > .05$ ;  $M_{W3Time\ Duration\ in\ Minute}=13.99$ ,  $N=171$ ,  $F(172,5)=1.58$ ;  $P > .05$ ). Table 3-5 shows the descriptive statistics of time for completion of questionnaires from wave 1 to wave 3.

**Table 3-5. Descriptive statistics of time for completion**

Dependent Variable: Time Duration in Minute									
Conditions	Wave 1			Wave 2			Wave 3		
	Mean	Std. Deviation	N	Mean	Std. Deviation	N	Mean	Std. Deviation	N
G2- Expressive writing- Both cognition and emotion	12.50	19.58	170	14.00	18.82	38	15.23	29.57	26
G3- Expressive writing- Cognition only	12.25	15.48	152	11.30	14.45	40	8.19	7.22	20
G4- Expressive writing- Emotion only	15.43	27.77	177	9.60	9.38	58	7.42	6.94	26
G5- Pre-formatted survey- Both cognition and emotion	22.07	19.40	106	14.78	9.38	41	13.96	8.47	33
G6- Pre-formatted survey- Cognition only	21.52	29.970	116	18.12	20.88	42	17.70	25.25	31
G7- Pre-formatted survey- Emotion only	17.80	14.24	112	20.17	33.21	47	18.14	21.13	35
Total	16.26	22.30	833	14.49	19.64	266	13.99	19.29	171

### 3.4.7. Sample and procedure

As mentioned earlier, 12021 (1718 respondents per condition) online complainers of ConsumerAffairs.com constituted the respondents for this research. After the first wave, 833 out of 10303 respondents completed the questionnaires of conditions 2 to 7 (i.e., G2-G7). The overall response rate was 8.08% at wave 1. The number of respondents reduced to 266 from Wave 1 to Wave 2, to 171 from wave 2 to Wave 3, and to 119 from wave 3 to wave 4 with 31.93%, 64.28% and 69.59% response rates, respectively. Additionally, 126 out of 1718 respondents completed the questionnaire of the control condition (G1) at wave 4 with 7.33% response rate. Overall, 245 respondents completed the four waves of questionnaires in seven conditions (i.e., G1-G7) (See Table 3-6). The total sample size is comparable to that

of a typical longitudinal service study (Grégoire et al., 2010, 2009).

**Table 3-6. Response rates per condition**

Conditions	Wave 1	Wave 2	Wave 3	Wave 4
G1- Post-intervention questionnaire				126
G2- Expressive writing-Both cognition and emotion	170	38	26	17
G3- Expressive writing- Cognition only	152	40	20	9
G4- Expressive writing- Emotion only	177	58	26	13
G5- Pre-formatted survey- Both cognition and emotion	106	41	33	27
G6- Pre-formatted survey- Cognition only	116	42	31	25
G7- Pre-formatted survey- Emotion only	112	47	35	28
Total	833	266	171	245

\* An initial sample of respondents was 12021 (1718 per condition).

Of the final sample, 57 percent of the respondents were female and the average age of respondents was 50.75 years ( $SD=12.64$ ). Overall, 94.3 percent of the respondents were Anglophone. The Cronbach's alphas were greater than .70 guideline suggested by Nunnally (1978) (See Table 3-7).

We conducted four exploratory factor analyses (EFAs) and we used principal components method for each wave. Overall, the results of the four EFAs clarify that the items related to each of dependent variables are strongly loaded on their respective factors (i.e., loadings $>.50$ , cross-loadings $<.30$ ). Table 3-7 illustrates the EFA loadings, Cronbach's alphas, average variance extracted (AVE), means and standard deviations of each factor in the four waves.

### **3.4.8. Confirmatory Factor Analyses (CFAs)**

The psychometric properties of the scales were evaluated by four CFA models (Anderson & Gerbing, 1988), each corresponding to one wave of time. Each CFA model includes inferred negative motives (4 items), feeling of betrayal (6 items), anger (5 items), desire for revenge (5 items), desire for avoidance (5 items), and desire for reconciliation (5 items). The first CFA model (wave 1-CFA), produced a satisfactory fit with a comparative fit index (CFI) of .941, a Tucker-Lewis index (TLI) of .929, an incremental fit index (IFI) of .942, a root mean square error of approximation (RMSEA) of .024, and a chi-square of 752.728 (d.f. = 390,  $P \leq .000$ ). In this model the loadings were large and significant ( $p \leq .000$ ), the

average variance extracted (AVEs) were greater than .50 for all constructs (See Table 3-7).

The second CFA model of wave 2 produced a satisfactory fit with a comparative fit index (CFI) of .872, a Tucker-Lewis index (TLI) of .847, an incremental fit index (IFI) of .875, a root mean square error of approximation (RMSEA) of .024, and a chi-square of 752.451 (d.f. = 390,  $P \leq .000$ ). In this model the loadings were large and significant ( $p \leq .000$ ), and the average variance extracted (AVEs) were greater than .60 for all constructs (See Table 3-7).

The third CFA model of wave 3 produced a satisfactory fit with a comparative fit index (CFI) of .90, a Tucker-Lewis index (TLI) of .871, an incremental fit index (IFI) of .904, a root mean square error of approximation (RMSEA) of .021, and a chi-square of 969.048 (d.f. = 390,  $P \leq .000$ ). In this model the loadings were large and significant ( $p \leq .000$ ), the average variance extracted (AVEs) were greater than .60 for all constructs (See Table 3-7).

The last model that was represented for the wave 4 also produced a satisfactory fit with a comparative fit index (CFI) of .946, a Tucker-Lewis index (TLI) of .936, an incremental fit index (IFI) of .947, a root mean square error of approximation (RMSEA) of .025, and a chi-square of 786.231 (d.f. = 390,  $P \leq .000$ ). In this model the loadings were large and significant ( $p \leq .000$ ), the average variance extracted (AVEs) were greater than .60 for all constructs (See Table 3-7).

**Table 3-7. Scale statistics (Cronbach's alphas, means, standard deviations, AVE, and EFA loadings)**

Inferred negative motives	
<b>Wave 1</b> $\alpha = .886$ Mean (M)= 5.58 Standard Deviation (SD)= 1.55 Average variance extracted (AVE) = 0.667 EFA Loading: between .690 and .958	<b>Wave 3</b> $\alpha = .864$ Mean (M)= 5.12 Standard Deviation (SD)= 1.48 Average variance extracted (AVE) = 0.633 EFA Loading: between .678 and .981
<b>Wave 2</b> $\alpha = .854$ Mean (M)= 5.32	<b>Wave 4</b> $\alpha = .873$ Mean (M)= 5.27

Standard Deviation (SD)= 1.41 Average variance extracted (AVE) = 0.605 EFA Loading: between .697 and .960	Standard Deviation (SD)= 1.59 Average variance extracted (AVE) = 0.676 EFA Loading: between .706 and .948
<b>Feeling of betrayal</b>	
<b>Wave 1</b> $\alpha$ = .963 Mean (M)= 4.99 Standard Deviation (SD)= 2.22 Average variance extracted (AVE) = 0.804 EFA Loading: between .811 and .944	<b>Wave 3</b> $\alpha$ = .941 Mean (M)= 4.98 Standard Deviation (SD)= 2.13 Average variance extracted (AVE) = 0.737 EFA Loading: between .793 and .979
<b>Wave 2</b> $\alpha$ = .952 Mean (M)= 5.05 Standard Deviation (SD)= 2.10 Average variance extracted (AVE) = 0.770 EFA Loading: between .801 and .957	<b>Wave 4</b> $\alpha$ = .945 Mean (M)= 5.48 Standard Deviation (SD)= 1.82 Average variance extracted (AVE) = 0.741 EFA Loading: between .738 and .952
<b>Anger</b>	
<b>Wave 1</b> $\alpha$ = .955 Mean (M)= 5.21 Standard Deviation (SD)= 2.02 Average variance extracted (AVE) = .822 EFA Loading: between .863 and .945	<b>Wave 3</b> $\alpha$ = .959 Mean (M)= 4.49 Standard Deviation (SD)= 2.13 Average variance extracted (AVE) = .811 EFA Loading: between .829 and .962
<b>Wave 2</b> $\alpha$ = .949 Mean (M)= 4.78 Standard Deviation (SD)= 2.04 Average variance extracted (AVE) = .800 EFA Loading: between .764 and .999	<b>Wave 4</b> $\alpha$ = .946 Mean (M)= 4.98 Standard Deviation (SD)= 1.93 Average variance extracted (AVE) = .787 EFA Loading: between .657 and .974
<b>Desire for revenge</b>	
<b>Wave 1</b> $\alpha$ = .953 Mean (M)= 3.67 Standard Deviation (SD)= 2.18 Average variance extracted (AVE) = .804 EFA Loading: between .816 and .998	<b>Wave 3</b> $\alpha$ = .975 Mean (M)= 3.74 Standard Deviation (SD)= 2.66 Average variance extracted (AVE) = .891 EFA Loading: between .679 and .793



<b>Wave 2</b> $\alpha = .958$ Mean (M)= 3.96 Standard Deviation (SD)= 2.14 Average variance extracted (AVE) = .831 EFA Loading: between .791 and .994	<b>Wave 4</b> $\alpha = .955$ Mean (M)= 3.91 Standard Deviation (SD)= 1.97 Average variance extracted (AVE) = .811 EFA Loading: between .855 and .955
<b>Desire for avoidance</b>	
<b>Wave 1</b> $\alpha = .920$ Mean (M)= 5.12 Standard Deviation (SD)= 1.97 Average variance extracted (AVE) = 0.691 EFA Loading: between .787 and .911	<b>Wave 3</b> $\alpha = .913$ Mean (M)= 5.41 Standard Deviation (SD)= 1.70 Average variance extracted (AVE) = 0.666 EFA Loading: between .681 and .989
<b>Wave 2</b> $\alpha = .941$ Mean (M)= 5.36 Standard Deviation (SD)= 1.83 Average variance extracted (AVE) = .762 EFA Loading: between .736 and .930	<b>Wave 4</b> $\alpha = .929$ Mean (M)= 5.50 Standard Deviation (SD)= 1.79 Average variance extracted (AVE) = 0.728 EFA Loading: between .806 and .936
<b>Desire for reconciliation</b>	
<b>Wave 1</b> $\alpha = .867$ Mean (M)= 2.21 Standard Deviation (SD)= 1.49 Average variance extracted (AVE) = 0.568 EFA Loading: between .740 and .802	<b>Wave 3</b> $\alpha = .943$ Mean (M)= 2.45 Standard Deviation (SD)= 1.77 Average variance extracted (AVE) = 0.759 EFA Loading: between .916 and .998
<b>Wave 2</b> $\alpha = .912$ Mean (M)= 2.14 Standard Deviation (SD)= 1.46 Average variance extracted (AVE) = 0.690 EFA Loading: between .723 and .958	<b>Wave 4</b> $\alpha = .923$ Mean (M)= 2.05 Standard Deviation (SD)= 1.42 Average variance extracted (AVE) = 0.705 EFA Loading: between .731 and .915

### 3.4.9. Self-selection bias

To control for the possibility of a self-selection bias, we verified that the respondents in seven conditions experience a similar service situation at wave 4. To do so, we asked the participants in seven groups at wave 4 (i.e., post-intervention questionnaire) the two following questions: 1) whether they received a satisfactory

resolution since they complained; 2) and whether they gave up on having the service failure resolve to their satisfaction since they complained. Overall, the same proportions of participants in all seven conditions received a similar level of satisfactory resolution at wave 4 (G1 “Post-intervention questionnaire” = 17.89%  $\approx$  G2 “Expressive writing-Both cognition and emotion” = 31.58%  $\approx$  G3 “Expressive writing- Cognition only” = 11.11%  $\approx$  G4 “Expressive writing- Emotion only” = 15.38%  $\approx$  G5 “Pre-formatted survey- Both cognition and emotion” = 22.22%  $\approx$  G6 “Pre-formatted survey- Cognition only” = 24.00%  $\approx$  G7 “Pre-formatted survey- Emotion only” = 7.14%; chi-square= 5.754; p=.451); the same proportions gave up the idea of resolving the problem (G1 “Post-intervention questionnaire” = 54.83%  $\approx$  G2 “Expressive writing-Both cognition and emotion” = 50.00%  $\approx$  G3 “Expressive writing- Cognition only” = 44.44%  $\approx$  G4 “Expressive writing- Emotion only” = 38.46%  $\approx$  G5 “Pre-formatted survey- Both cognition and emotion” = 51.85%  $\approx$  G6 “Pre-formatted survey- Cognition only” = 52.00%  $\approx$  G7 “Pre-formatted survey- Emotion only” = 42.86%; chi-square= 2.467; p=.872). These comparisons suggest the complainers in all conditions experienced a comparable service failure situation at wave 4. Their differences in responses could not be explained by the fact that one group received more resolution than the others; that one subgroup gave up finding a resolution; or that one subgroup was more active than the other in interacting with the firm.

Overall, these analyses give us confidence that the differences in form and content of questionnaires are explained by the measurement treatment rather than a potential self-selection bias related to the double deviation situation or the complainers.

#### **3.4.10. Attrition in the conditions: Missing at Random**

We confirmed through a series of mean comparisons that the respondents who did not complete all the waves (i.e., G2-G7) did not differ from the respondents who completed the four waves on the key variables of interest: such as inferred negative motives ( $M_{\text{three-waves-or-less}} = 5.59 \approx M_{\text{all-waves}} = 5.36$ ;  $F[1, 1988] = .56$ ;  $p = .45$ ), betrayal ( $M_{\text{three-waves-or-less}} = 4.69 \approx M_{\text{all-waves}} = 5.33$ ;  $F[1, 2742] = .06$ ;  $p = .80$ ), anger

( $M_{\text{three-waves-or-less}} = 5.28 \approx M_{\text{all-waves}} = 4.73$ ;  $F[1, 2742] = 2.68$ ;  $p = .10$ ), desire for revenge ( $M_{\text{three-waves-or-less}} = 3.57 \approx M_{\text{all-waves}} = 3.39$ ;  $F[1, 2742] = .21$ ;  $p = .65$ ), desire for avoidance ( $M_{\text{three-waves-or-less}} = 4.97 \approx M_{\text{all-waves}} = 5.74$ ;  $F[1, 2740] = 3.44$ ;  $p = .06$ ), and desire for reconciliation ( $M_{\text{three-waves-or-less}} = 2.18 \approx M_{\text{all-waves}} = 1.65$ ;  $F[1, 2648] = .19$ ;  $p = .66$ ). The results suggest that data were missing at random and the longitudinal data remained unbiased by attrition (McCullough et al., 2001).

### 3.5. Results

#### 3.5.1. Mixed models

We performed a series of mixed models (Singer, 1998). Mixed models provide a better mechanism for handling missing values (Institute, 2011). The mixed models approach incorporates the observations of all the respondents, even those who did not complete all the waves. It is a flexible and more widely applicable method to treat missing data in longitudinal models (Gornbein, Lazaro, & Little, 1992). Additionally, mixed models allow us to handle fixed effects as well as random effects (Singer, 1998). It provides variety of covariance structures that can be accounted for the effects of the between subject factors (i.e., fixed effects), and the longitudinal pattern associated with the repeated measures (i.e., random effects) (Institute, 2011; Pinheiro & Bates, 2000). To analyze the data, SAS 9.3 statistical package is used and PROC MIXED is employed. We specified maximum likelihood to estimate variance parameters as it is preferred to an unbiased fashion of missing at random data (Fitzmaurice, Laird, & James, 2004).

To test H1a-H6a and H1b-H6b, we considered each dependent variable at wave 4 in order to compare the effects of different forms and contents of the questionnaires among all conditions (“Wave4 Test”). To test H1c-H6c, we compared the effects of form of questionnaire on each of dependent variables by incorporating expressive writing conditions (i.e., expressive writing about cognitions only, emotions only, both cognitions and emotions) vs. pre-formatted survey conditions (i.e., surveys about cognitions only, emotions only, both cognitions and emotions) at wave 4 (“Form Test”). In addition, we did post-hoc analyses for each dependent variable. First, we analyzed the quadratic trend of each

dependent variable between the two pre-formatted survey conditions in the categorical reference (“Categorical Test”). Then, we analyzed the evolution of each dependent variable across the four waves by specifying a quadratic or a linear term for the time variable and also compared the two survey conditions in terms of a quadratic or linear pattern (“Quadratic Test”).

*H1a-H6a.* The results of *Wave4 Test* for all dependent variables appear in Table 3-8.

**Table 3-8. *Wave4 Test* for revenge and reconciliation responses**

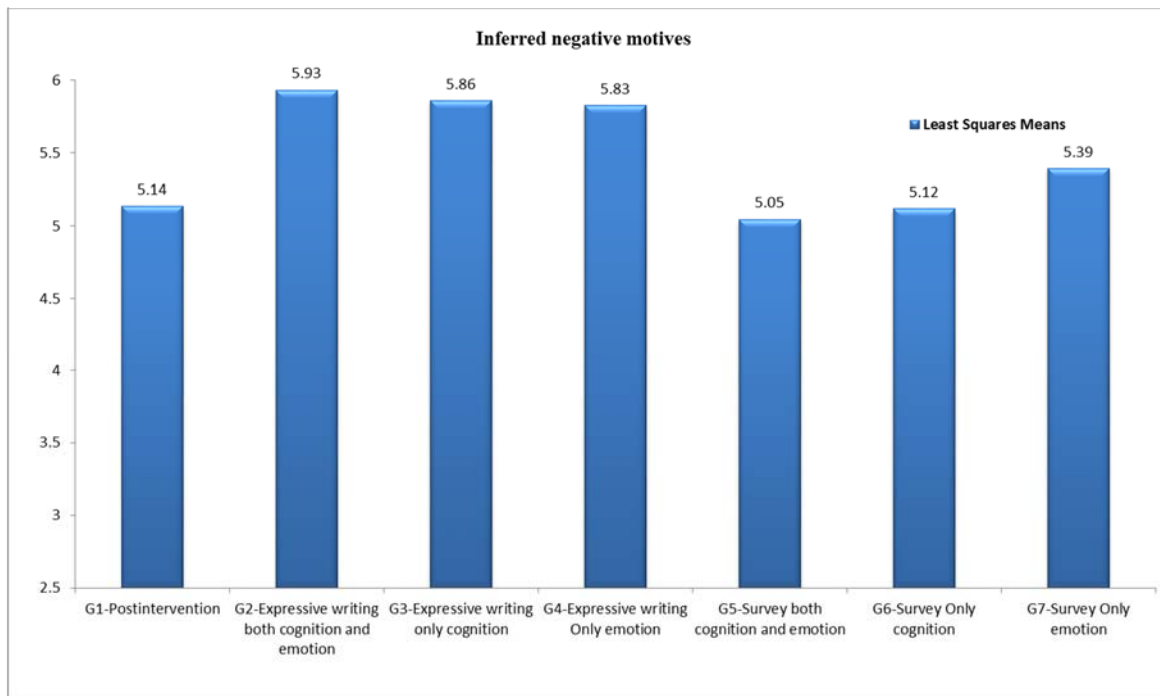
Differences of Least Squares Means													
		Inferred Negative Motives		Feeling of betrayal		Anger		Desire for Revenge		Desire for Avoidance		Desire for Reconciliation	
Condition	Condition	t Value	Pr >  t	t Value	Pr >  t	t Value	Pr >  t	t Value	Pr >  t	t Value	Pr >  t	t Value	Pr >  t
G1- Post-intervention questionnaire	G2- Expressive writing- Both cognition and emotion	-5.45	<.0001	-1.26	0.2074	-3.83	0.0001	-6.83	<.0001	-6.17	<.0001	2.4	0.0163
G1- Post-intervention questionnaire	G3- Expressive writing- Cognition only	-3.53	0.0004	-1.38	0.1693	-0.61	0.5416	-2.29	0.0221	-2.93	0.0035	3.16	0.0016
G1- Post-intervention questionnaire	G4- Expressive writing- Emotion only	-3.98	<.0001	-0.4	0.6906	-4.07	<.0001	-5.76	<.0001	-2.99	0.0028	2.7	0.0069
G1- Post-intervention questionnaire	G5- Pre-formatted survey- Both cognition and emotion	0.73	0.4668	4.28	<.0001	7.93	<.0001	1.54	0.123	5.36	<.0001	-4.09	<.0001
G1- Post-intervention questionnaire	G6- Pre-formatted survey- Cognition only	0.14	0.89	-1.26	0.2094	1.18	0.2398	-6.56	<.0001	-0.98	0.3292	3.41	0.0007
G1- Post-intervention questionnaire	G7- Pre-formatted survey- Emotion only	-2.05	0.0402	-1.82	0.0688	-1.5	0.1335	-7.82	<.0001	-3.89	0.0001	3.66	0.0003
G2- Expressive writing- Both cognition and emotion	G3- Expressive writing- Cognition only	0.3	0.761	-0.41	0.6852	1.81	0.0707	2.2	0.0278	1.26	0.2095	1.23	0.2171
G2- Expressive writing- Both cognition and emotion	G4- Expressive writing- Emotion only	0.5	0.6157	0.54	0.5889	-0.68	0.4986	0.01	0.99	1.79	0.073	0.54	0.5863
G2- Expressive writing- Both cognition and emotion	G5- Pre-formatted survey- Both cognition and emotion	4.99	<.0001	4.07	<.0001	8.77	<.0001	6.71	<.0001	8.87	<.0001	-4.88	<.0001
G2- Expressive writing- Both cognition and emotion	G6- Pre-formatted survey- Cognition only	4.51	<.0001	0.12	0.9073	3.94	<.0001	0.8	0.4235	4.29	<.0001	0.51	0.6102
G2- Expressive writing- Both cognition and emotion	G7- Pre-formatted survey- Emotion only	3.07	0.0022	-0.24	0.8135	2.12	0.0345	0.16	0.875	2.37	0.0177	0.59	0.5581
G3- Expressive writing- Cognition only	G4- Expressive writing- Emotion only	0.13	0.8944	0.83	0.4084	-2.25	0.0246	-2.04	0.0411	0.32	0.751	-0.7	0.4837
G3- Expressive writing- Cognition only	G5- Survey both cognition and emotion	3.57	0.0004	3.59	0.0003	4.92	<.0001	2.91	0.0037	5.58	<.0001	-5.09	<.0001
G3- Expressive writing- Cognition only	G6- Pre-formatted survey- Cognition only	3.21	0.0013	0.51	0.6079	1.2	0.2285	-1.67	0.0961	2.05	0.0406	-0.89	0.3757
G3- Expressive writing- Cognition only	G7- Pre-formatted survey- Emotion only	2.06	0.0397	0.25	0.8065	-0.27	0.7878	-2.2	0.0277	0.52	0.606	-0.85	0.3957
G4- Expressive writing- Emotion only	G5- Pre-formatted survey- Both cognition and emotion	3.89	0.0001	3.03	0.0025	8.5	<.0001	5.94	<.0001	5.96	<.0001	-4.91	<.0001
G4- Expressive writing- Emotion only	G6- Pre-formatted survey- Cognition only	3.48	0.0005	-0.47	0.6418	4.22	<.0001	0.7	0.4845	1.93	0.0541	-0.12	0.9052
G4- Expressive writing- Emotion only	G7- Pre-formatted survey- Emotion only	2.18	0.0295	-0.79	0.4304	2.6	0.0094	0.13	0.8999	0.18	0.8579	-0.06	0.9482
G5- Pre-formatted survey- Both cognition and emotion	G6- Pre-formatted survey- Cognition only	-0.45	0.6547	-4.26	<.0001	-5.14	<.0001	-6.36	<.0001	-4.87	<.0001	5.82	<.0001
G5- Pre-formatted survey- Both cognition and emotion	G7- Pre-formatted survey- Emotion only	-2.16	0.0306	-4.78	<.0001	-7.4	<.0001	-7.28	<.0001	-7.23	<.0001	6.06	<.0001
G6- Pre-formatted survey- Cognition only	G7- Pre-formatted survey- Emotion only	-1.67	0.0951	-0.38	0.7012	-2.08	0.038	-0.72	0.4744	-2.18	0.0297	0.07	0.9452

*H1a-H1b.* We performed the *Wave4 test* for inferred negative motives in all seven conditions (i.e., G1-G7). The results revealed that there were no significant differences among the least squares means of inferred negative motives in expressive writing conditions (i.e., G2-G4) ( $M_{\text{expressive writing both emotion and cognition}} =$

5.93;  $M_{\text{expressive writing only emotion}} = 5.83$ ;  $t[1715] = .50$ ;  $p = .61$ ); ( $M_{\text{expressive writing both emotion and cognition}} = 5.93$ ;  $M_{\text{expressive writing only cognition}} = 5.86$ ;  $t[1715] = .30$ ;  $p = .76$ ); ( $M_{\text{expressive writing only cognition}} = 5.86$ ;  $M_{\text{expressive writing only emotion}} = 5.83$ ;  $t[1715] = .13$ ;  $p = .89$ ) (See Figure 3-3). So, H1a was not supported.

Moreover, two by two comparisons of pre-formatted survey conditions (i.e., G5-G7) revealed that the “pre-formatted survey of both cognitions and emotions” (i.e., G5) and “pre-formatted survey of emotions only” (i.e., G7) conditions were significantly different in least square means of inferred negative motives ( $M_{\text{survey both emotion and cognition}} = 5.05$ ;  $M_{\text{survey only emotion}} = 5.39$ ;  $t[1715] = -2.16$ ;  $p < .05$ ). So, H1b was partially supported.

**Figure 3-3. Wave4 test for inferred negative motives**

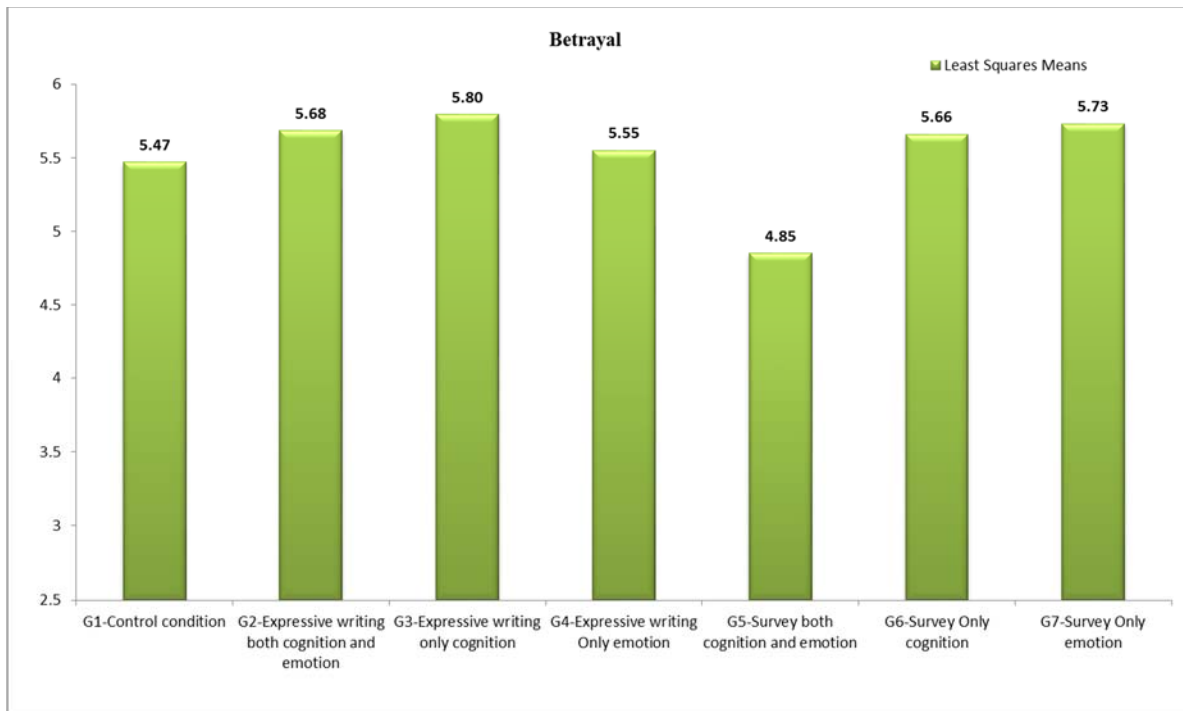


In addition, we compared the control condition (i.e., G1) with which the respondents answered only one post-intervention questionnaire at wave 4 with all other conditions (i.e., G2-G7). The results showed that the differences of least square means of inferred negative motives between G1 and all other conditions were significant except for G5 ( $M_{\text{control group}} = 5.14$ ;  $M_{\text{survey both emotion and cognition}} = 5.05$ ;  $t[1715] = .73$ ;  $p = .47$ ) and G6 conditions ( $M_{\text{control group}} = 5.14$ ;  $M_{\text{survey only cognition}} =$

5.12;  $t[1715] = .14$ ;  $p = .89$ ) (See Table 3-8).

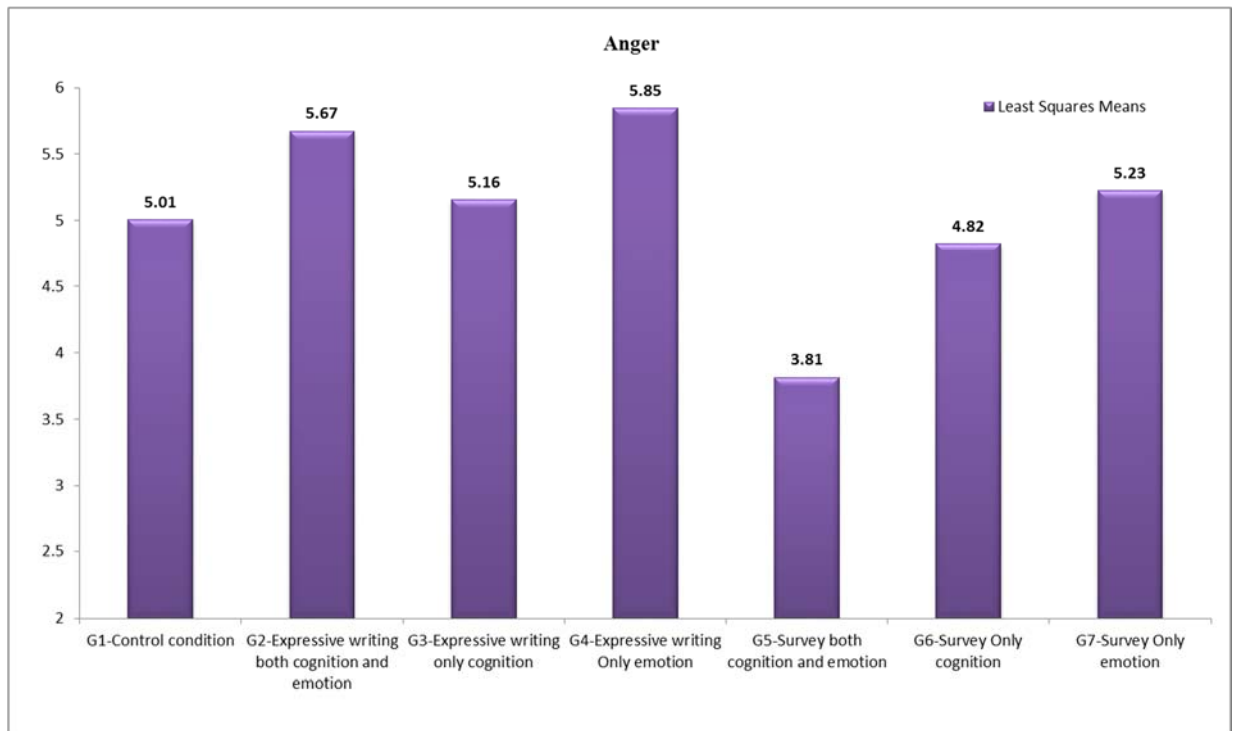
*H2a-H2b.* We compared the feeling of betrayal at wave 4 in all seven conditions (i.e., G1-G7). The results showed that the differences of least square means of betrayal were only significant between “pre-formatted survey of both cognitions and emotions” ( $M_{\text{survey of both cognition and emotion}} = 4.85$ ) with each of the other conditions ( $M_{\text{expressive writing of both cognition and emotion}} = 5.68$ ;  $t[1715] = 4.07$ ;  $p < .0001$ ); ( $M_{\text{expressive writing of only cognition}} = 5.80$ ;  $t[1715] = 3.59$ ;  $p < .001$ ); ( $M_{\text{expressive writing of only emotion}} = 5.55$ ;  $t[1715] = 3.03$ ;  $p < .01$ ); ( $M_{\text{survey of only cognition}} = 5.66$ ;  $t[1715] = 4.26$ ;  $p < .0001$ ); ( $M_{\text{survey of only emotion}} = 5.73$ ;  $t[1715] = 4.78$ ;  $p < .0001$ ); ( $M_{\text{control condition}} = 5.47$ ;  $t[1715] = 4.28$ ;  $p < .0001$ ) (See Table 3-8). Also, those who participated in “pre-formatted survey of both cognitions and emotions” reported the lowest mean of feeling of betrayal at wave 4 (See Figure 3-4). Hence, the results did not support H2a but support H2b.

**Figure 3-4. Wave4 test for feeling of betrayal**



*H3a-H3b.* We repeated *Wave4 test* for anger and our main findings suggest that those who participated in “pre-formatted survey of both cognitions and emotions” condition (i.e., G5) reported the lowest score of anger at wave 4 (See Table 3-8) and the differences of least square means of anger between G5 ( $M_{\text{survey of both cognition and emotion}} = 3.81$ ) and each of the other conditions were significant ( $M_{\text{expressive writing of both cognition and emotion}} = 5.67$ ;  $t[1715] = 8.77$ ;  $p < .0001$ ); ( $M_{\text{expressive writing of only cognition}} = 5.16$ ;  $t[1715] = 4.92$ ;  $p < .0001$ ); ( $M_{\text{expressive writing of only emotion}} = 5.85$ ;  $t[1715] = 8.50$ ;  $p < .0001$ ); ( $M_{\text{survey of only cognition}} = 4.82$ ;  $t[1715] = 5.14$ ;  $p < .0001$ ); ( $M_{\text{survey of only emotion}} = 5.23$ ;  $t[1715] = 7.40$ ;  $p < .0001$ ); ( $M_{\text{control condition}} = 5.01$ ;  $t[1715] = 7.93$ ;  $p < .0001$ ) (See Figure 3-5). H3a was not supported, but H3b was supported.

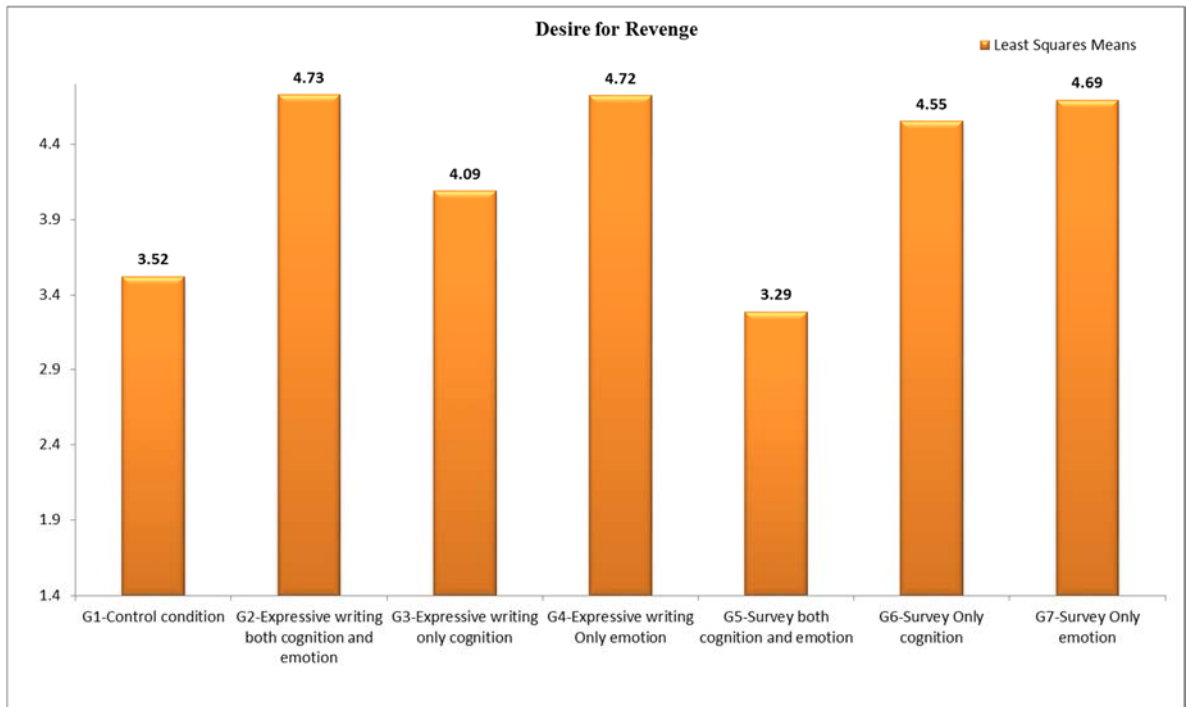
**Figure 3-5. *Wave4 test* for feeling of anger**



*H4a-H4b.* The main findings of the *Wave4 test* on desire for revenge confirmed that those who participated in “pre-formatted survey of both cognitions and emotions” condition (i.e., G5) reported the lowest score of desire for revenge at wave 4 (See Table 3-8), and the differences of least square means of desire for revenge were significant between G5 ( $M_{\text{survey of both cognition and emotion}} = 3.29$ ) and each of the other conditions ( $M_{\text{expressive writing of both cognition and emotion}} = 4.73$ ;  $t[1715] = 6.71$ ;

$p < .0001$ ); ( $M_{\text{expressive writing of only cognition}} = 4.09$ ;  $t[1715] = 2.91$ ;  $p < .005$ ); ( $M_{\text{expressive writing of only emotion}} = 4.72$ ;  $t[1715] = 5.94$ ;  $p < .0001$ ); ( $M_{\text{survey of only cognition}} = 4.55$ ;  $t[1715] = 6.63$ ;  $p < .0001$ ); ( $M_{\text{survey of only emotion}} = 4.69$ ;  $t[1715] = 7.28$ ;  $p < .0001$ ), except for the control condition. The difference of least square means of desire for revenge between G5 and G1 (control condition) was not significant ( $M_{\text{control condition}} = 3.52$ ;  $t[1715] = 1.54$ ;  $p = .12$ ) (See Figure 3-6). So, the results did not support H4a but significantly support H4b.

**Figure 3-6. Wave4 test for desire for revenge**

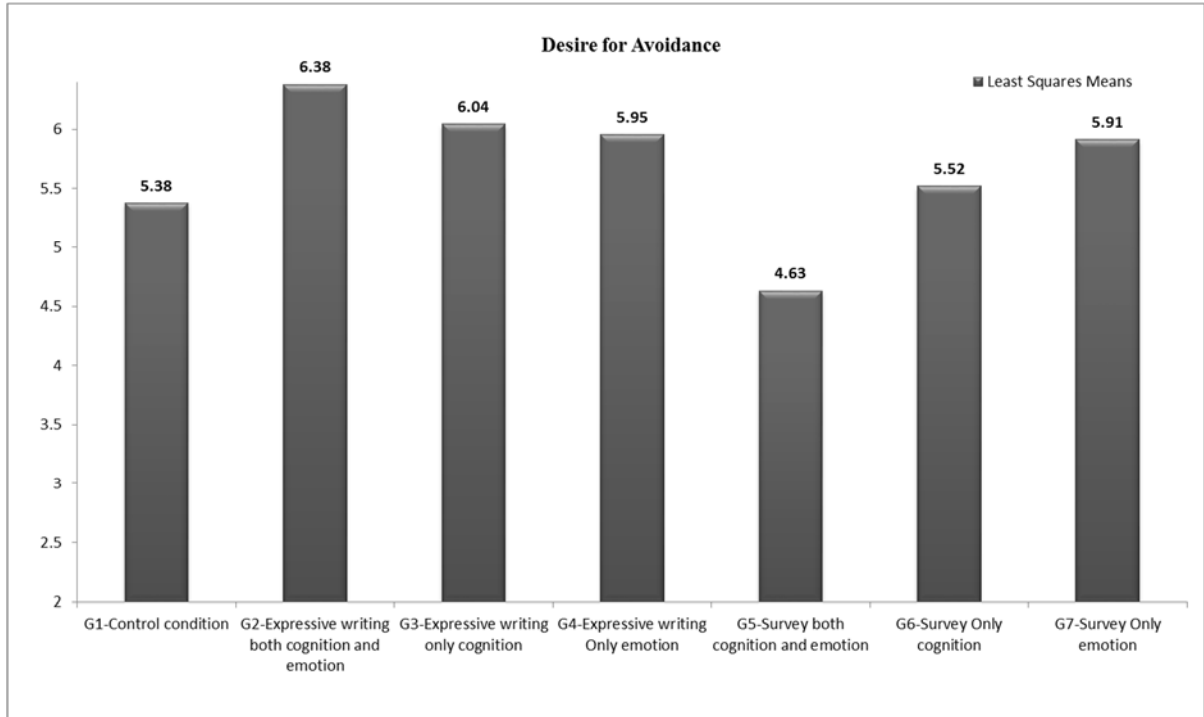


*H5a-H5b.* We repeated *Wave4 test* for desire for avoidance. First, the results showed that while the differences of least square means of desire for avoidance between each of pre-formatted survey conditions (i.e., G5-G6; G5-G7; G6-G7) were significant, the differences of least square means of desire for avoidance were not significant between any of the expressive writing conditions (i.e., G2-G3; G2-G4; G3-G4) (See Table 3-8). Second, our findings of the *Wave4 test* confirmed that those who participated in G5 reported the lowest score of desire for avoidance at wave 4, and the differences of least square means were significant between G5 ( $M_{\text{survey of both cognition and emotion}} = 4.63$ ) and each of the other conditions ( $M_{\text{expressive writing$



of both cognition and emotion = 6.38;  $t[1715] = 8.87$ ;  $p < .0001$ ); ( $M_{\text{expressive writing of only cognition}} = 6.04$ ;  $t[1715] = 5.58$ ;  $p < .005$ ); ( $M_{\text{expressive writing of only emotion}} = 5.95$ ;  $t[1715] = 5.96$ ;  $p < .0001$ ); ( $M_{\text{survey of only cognition}} = 5.52$ ;  $t[1715] = 4.87$ ;  $p < .0001$ ); ( $M_{\text{survey of only emotion}} = 5.91$ ;  $t[1715] = 7.23$ ;  $p < .0001$ ); ( $M_{\text{control condition}} = 5.38$ ;  $t[1715] = 1.54$ ;  $p = .12$ ) (See Figure 3-7). Hence, while H5a was not supported, H5b was supported.

**Figure 3-7. Wave4 test for desire for avoidance**

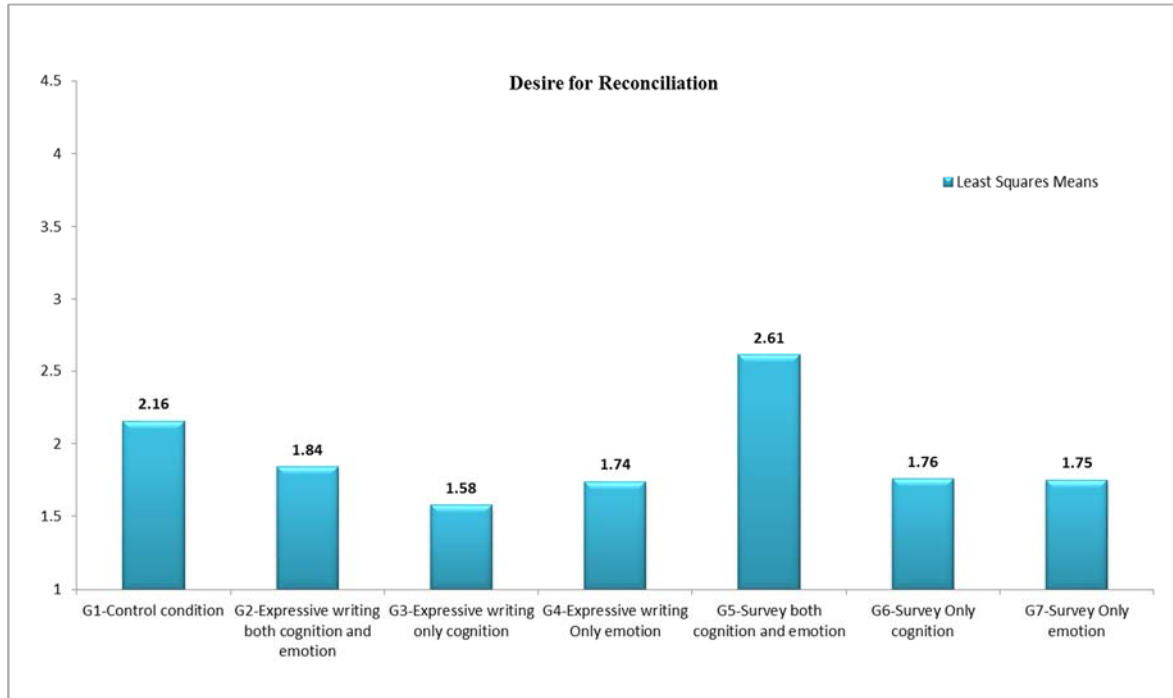


*H6a-H6b.* The results of *Wave4 test* revealed that there were no significant difference in the least square means of desire for reconciliation between any of expressive writing conditions (i.e., G2-G3; G2-G4; G3-G4) (See Table 3-8). Hence, the results did not support H6a.

Consistent with H6b, respondents in G5 reported the highest score of desire for reconciliation at *Wave4 test*, and the differences of least square means of desire for reconciliation were significant between G5 ( $M_{\text{survey of both cognition and emotion}} = 2.61$ ) and each of the other conditions ( $M_{\text{expressive writing of both cognition and emotion}} = 1.84$ ;  $t[1715] = 4.88$ ;  $p < .0001$ ); ( $M_{\text{expressive writing of only cognition}} = 1.58$ ;  $t[1715] = 5.09$ ;  $p < .0001$ ); ( $M_{\text{expressive writing of only emotion}} = 1.74$ ;  $t[1715] = 4.91$ ;  $p < .0001$ ); ( $M_{\text{survey of only cognition}} = 1.76$ ;  $t[1715] = 5.82$ ;  $p < .0001$ ); ( $M_{\text{survey of only emotion}} = 1.75$ ;  $t[1715] = 6.06$ ;  $p < .0001$ ).

.0001); ( $M_{\text{control condition}} = 2.16$ ;  $t[1715] = 4.09$ ;  $p < .0001$ ) (See Figure 3-8). So, H6b was supported.

**Figure 3-8. Wave4 test for desire for reconciliation**



Also, we found that the differences of least square means of desire for reconciliation were significant between G1 ( $M_{\text{control condition}} = 2.16$ ) and each of the other conditions ( $M_{\text{expressive writing of both cognition and emotion}} = 1.84$ ;  $t[1715] = 2.40$ ;  $p < .05$ ); ( $M_{\text{expressive writing of only cognition}} = 1.58$ ;  $t[1715] = 3.6$ ;  $p < .005$ ); ( $M_{\text{expressive writing of only emotion}} = 1.74$ ;  $t[1715] = 2.70$ ;  $p < .01$ ); ( $M_{\text{survey of both cognition and emotion}} = 2.16$ ;  $t[1715] = 4.09$ ;  $p < .0001$ ); ( $M_{\text{survey of only cognition}} = 1.76$ ;  $t[1715] = 3.41$ ;  $p < .001$ ); ( $M_{\text{survey of only emotion}} = 1.75$ ;  $t[1715] = 3.66$ ;  $p < .0005$ ).

*H1c-H6c.* We did the *Form test* at wave 4 for each of dependent variables. Consistent with our expectations, there was a significant difference in the score of revenge (i.e., inferred negative motives, feeling of betrayal, anger, desire for revenge, and desire for avoidance) and reconciliation (i.e., desire for reconciliation) responses of those who participated in expressive writing conditions vs. those who answered pre-formatted surveys at wave 4 (See Table 3-9).

**Table 3-9. *Form test* for comparing expressive writings vs. pre-formatted survey conditions at wave 4**

Type 3 Tests of Fixed Effects				
Effect	Num DF	Den DF	F Value	Pr > F
Inferred negative motives	1	845	39.71	<.0001
Feeling of betrayal	1	845	3.61	0.0579
Anger	1	845	45.81	<.0001
Desire for revenge	1	845	8.18	0.0043
Desire for avoidance	1	845	40.46	<.0001
Desire for reconciliation	1	845	8.48	0.0037

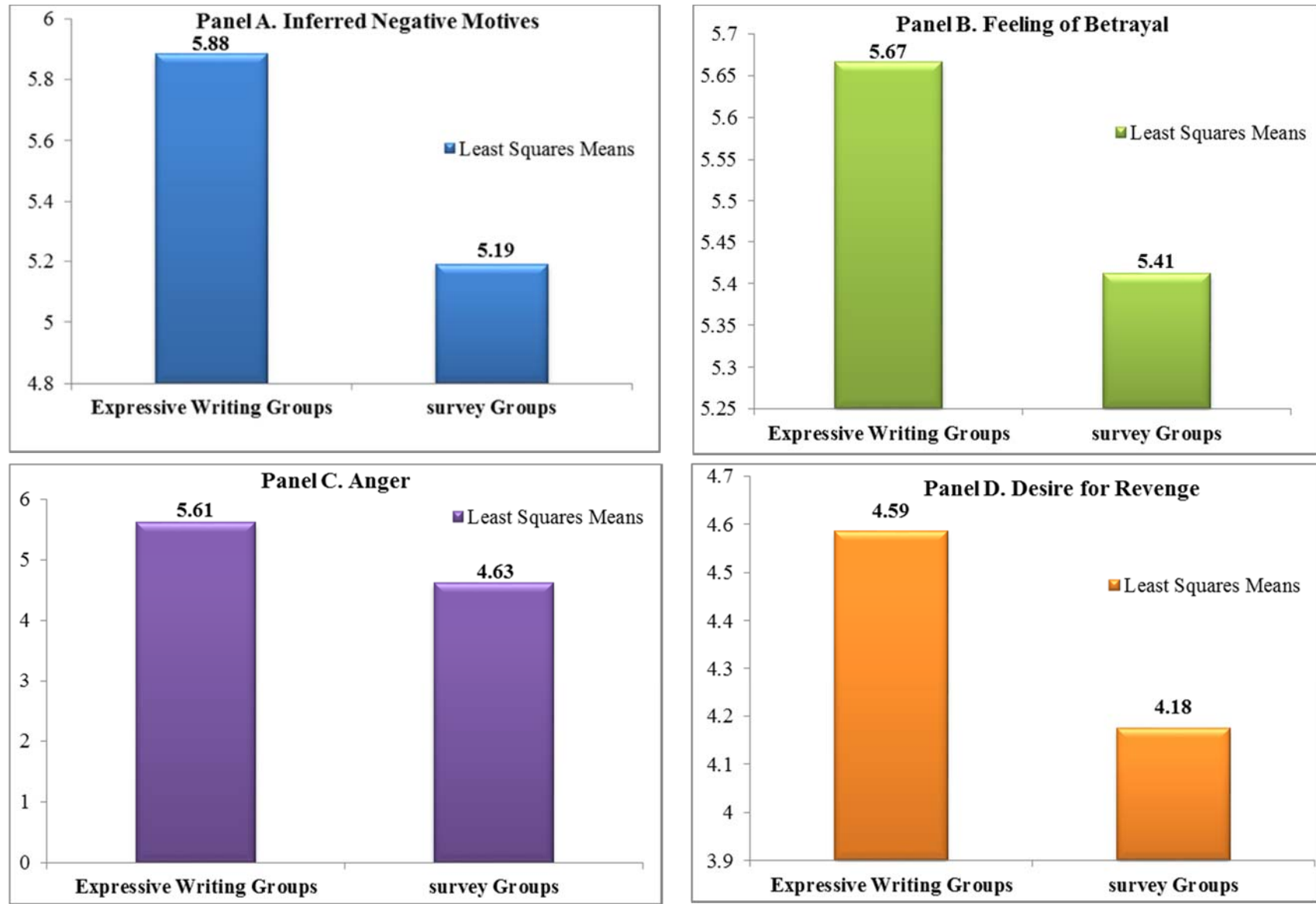
Surprisingly, the results revealed that those who participated in pre-formatted survey conditions (i.e., G5-G7) reported a significantly lower level of revenge responses than those who participated in expressive writing conditions (i.e., G2-G4). Hence, H1c-H5c were not supported (See Figure 3-9, panel A- panel E). Table 3-10 presents the least squares means of dependent variables.

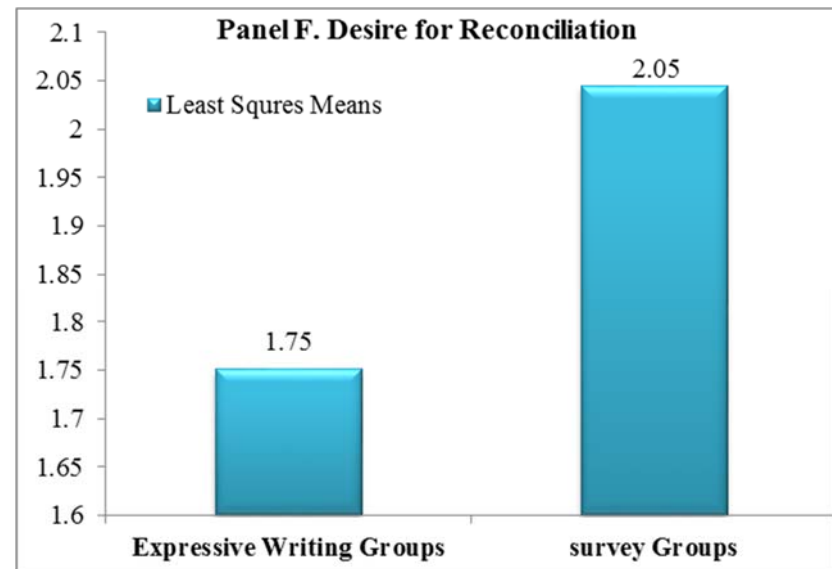
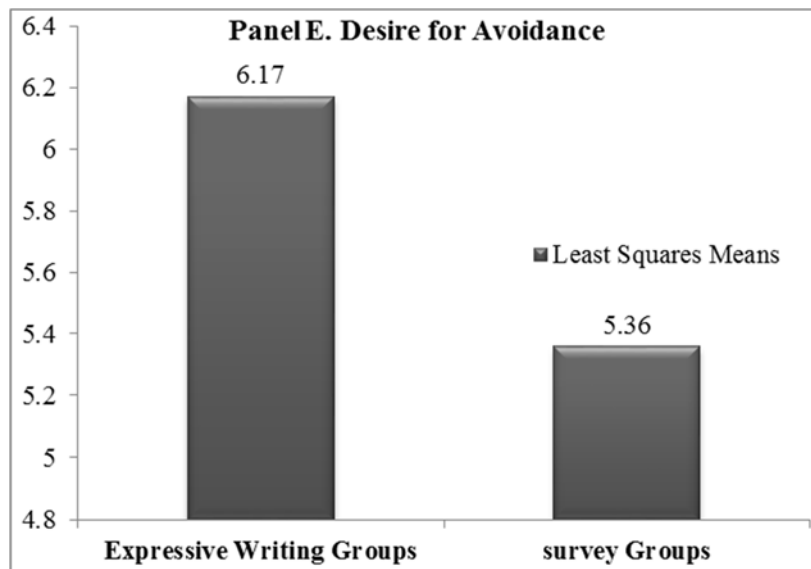
**Table 3-10. Least squares means of expressive writings vs. pre-formatted surveys**

Least Squares Means												
	Inferred negative motives		Feeling of betrayal		Anger		Desire for revenge		Desire for avoidance		Desire for reconciliation	
	Estimate	Standard Error	Estimate	Standard Error	Estimate	Standard Error	Estimate	Standard Error	Estimate	Standard Error	Estimate	Standard Error
Expressive Writing conditions	5.88	0.09	5.67	0.11	5.61	0.12	4.59	0.12	6.17	0.10	1.75	0.08
Pre-formatted Survey conditions	5.19	0.06	5.41	0.08	4.63	0.09	4.18	0.08	5.36	0.07	2.05	0.06

Moreover, the results of the *Form test* showed that those who participated in pre-formatted survey conditions reported a significantly higher level of desire for reconciliation than those who participated in expressive writing conditions ( $M_{\text{expressive writing conditions}} = 1.75$ ;  $M_{\text{survey conditions}} = 2.05$ ;  $F[1,845] = 8.48$ ;  $p < .005$ ). This is in contrast to our expectations. Hence, the results did not support H6c (See Figure 3-9, panel F).

**Figure 3-9. Comparing expressive writings vs. pre-formatted survey conditions at wave 4**





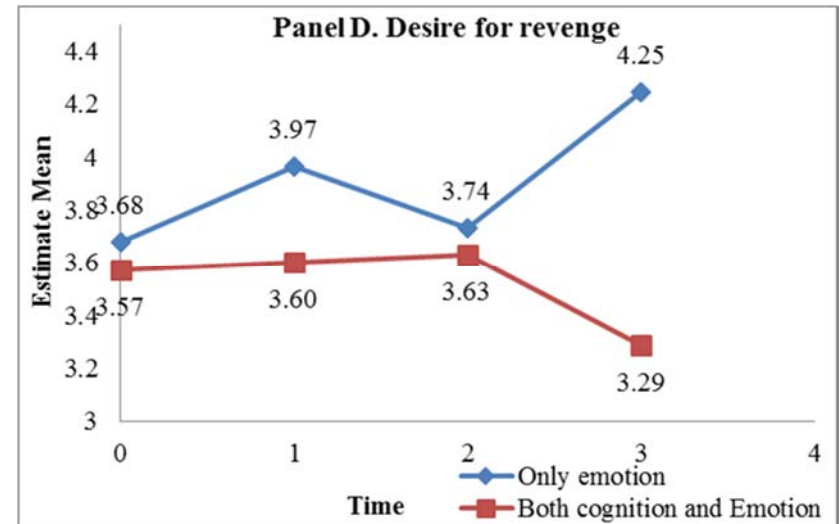
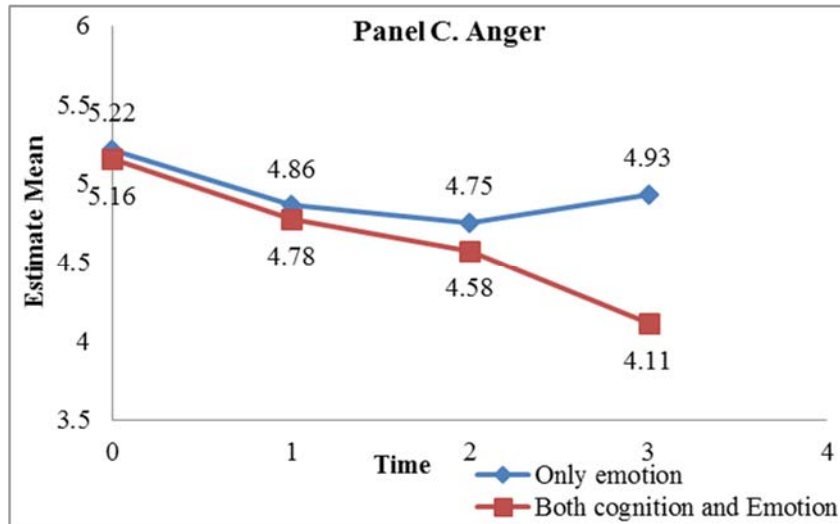
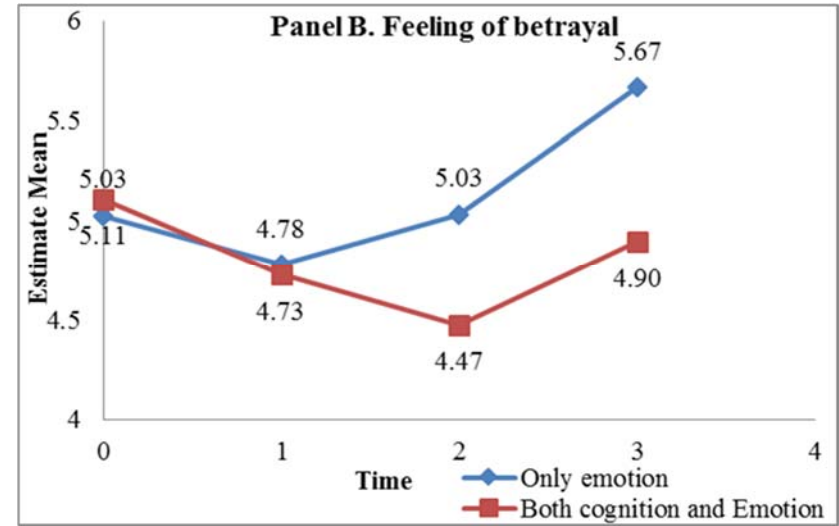
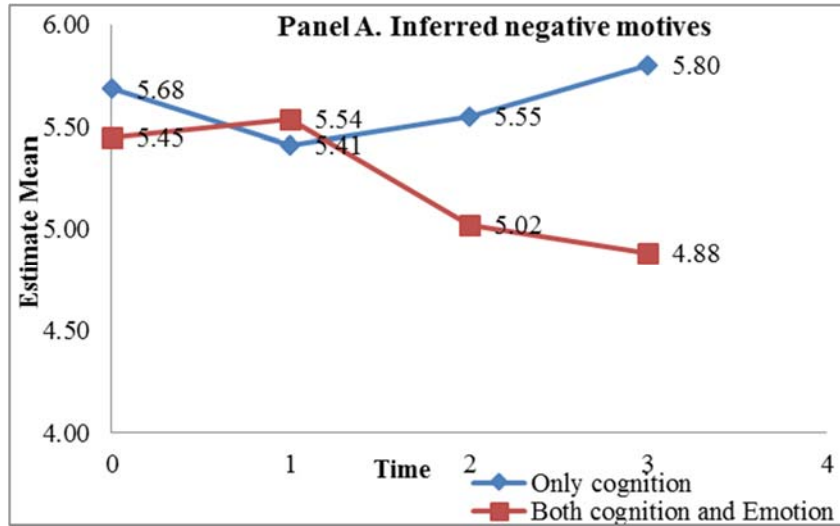
### 3.5.2. Post-hoc analyses

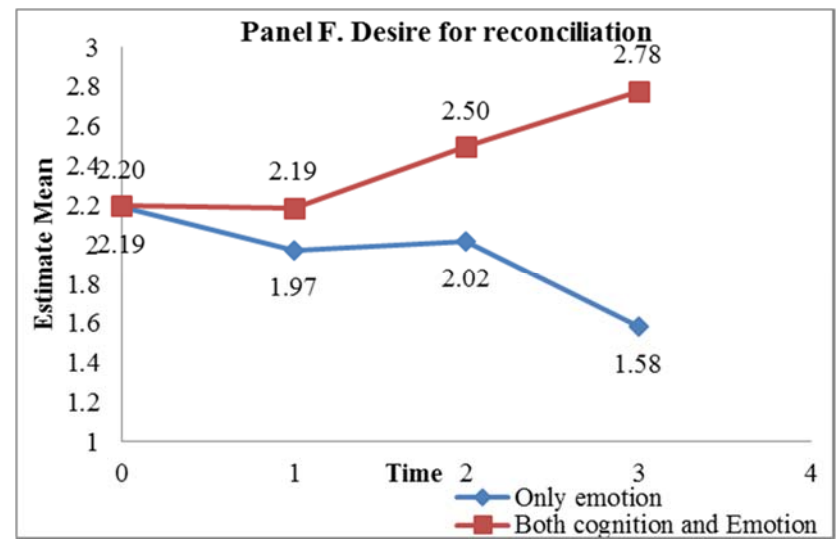
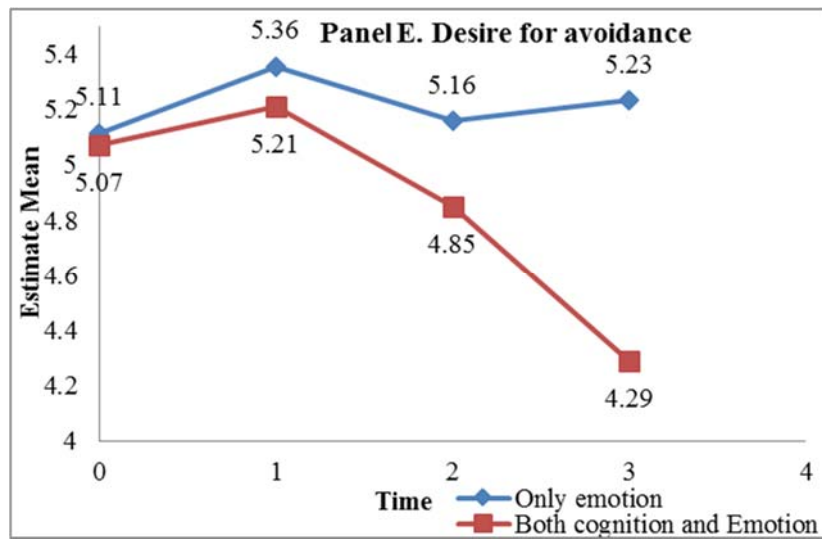
#### 3.5.2.1. Categorical test

We analyzed the quadratic trend of inferred negative motives between the “survey of both cognitions and emotions” condition (i.e., G5) and “survey of only cognitions” condition (i.e., G6) in the categorical reference. The results of the *Categorical test* showed that there was an interaction between G6, G5 and time as a categorical variable ( $F[3,184] = 23.31$ ;  $p < .0001$ ).

Also, we confirmed through a series of analyses that there was an interaction between “survey of only emotions” (i.e., G7), “survey of both cognitions and emotions” (i.e., G5) and time as a categorical variable in term of quadratic trend for revenge and reconciliation responses: such as anger ( $F[3,193] = 14.10$ ;  $p < .0001$ ), desire for revenge ( $F[3,193] = 22.40$ ;  $p < .0001$ ), desire for avoidance ( $F[3,193] = 9.85$ ;  $p < .0001$ ), desire for reconciliation ( $F[3,172] = 8.58$ ;  $p < .0001$ ). The only exception was for perceived betrayal for which we did not find any interaction between “survey of only emotions” (i.e., G7), “survey of both cognitions and emotions” (i.e., G5) and time as a categorical variable ( $F[3,193] = 1.56$ ;  $p = .2011$ ) (See Figure 3-10, panel A-panel F).

Figure 3-10. The quadratic trend of revenge and reconciliation responses in the categorical reference







### 3.5.2.2. Quadratic test

We did the *Quadratic test* for inferred negative motives between “survey of both cognitions and emotions” (i.e., G5) condition and “survey of only cognitions” (i.e., G6). The results confirmed that first, the interaction of inferred negative motives between G5 and G6 in a quadratic pattern was significant which means that in a quadratic trend the two conditions (i.e., G5 and G6) followed different patterns ( $t[1578] = 6.79$ ;  $p < .0001$ ). Second, it showed that the quadratic trend of inferred negative motives in G5 was significant and negative (Estimate  $\text{time}^2 = -.06502$ ;  $t[1578] = -5.61$ ;  $p < .0001$ ). Third, the time trend of inferred negative motives in G5 was not significant ( $t[1578] = .31$ ;  $p = .76$ ). Finally, comparing G5 and G6 conditions at wave 1 showed that there was no significant difference between the score of inferred negative motives in two conditions at wave 1 ( $t[229] = 1.07$ ;  $p = .28$ ) (See Figure 3-11, panel A).

The results of the *Quadratic test* for betrayal confirmed that first, the interaction of betrayal between G5 and G7 in a quadratic pattern was not significant which means that in a quadratic trend the two conditions (i.e., G5 and G7) followed the same patterns ( $t[2548] = .65$ ;  $p = .51$ ). Second, it showed that the quadratic trend of betrayal in G5 was significant and positive (Estimate  $\text{time}^2 = .1913$ ;  $t[2548] = 6.21$ ;  $p < .0001$ ). Third, the time trend of betrayal in G5 was significant ( $t[2548] = -4.48$ ;  $p < .0001$ ). Moreover, comparing betrayal between G5 and G7 conditions at wave 1 showed that there was no significant difference in the score of feeling of betrayal between the two conditions at wave 1 ( $t[228] = -.28$ ;  $p = .78$ ) (See Figure 3-11, panel B).

We found in *Quadratic test* for anger that first the two conditions (i.e., G5 and G7) followed different patterns because the interaction between G5 and G7 in a quadratic pattern was significant ( $t[2548] = 5.94$ ;  $p < .0001$ ). Second, the results showed that the quadratic trend of anger in “survey of both emotions and cognitions” (i.e., G5) was not significant ( $t[2548] = -.92$ ;  $p = .36$ ) but the time trend

of anger in G5 was significant ( $t[2548] = -2.15$ ;  $p < .05$ ). Comparing the score of anger between G5 and G7 conditions at wave 1 showed that there was no significant difference between the two conditions at wave 1 ( $t[228] = .28$ ;  $p = .78$ ) (See Figure 3-11, panel C).

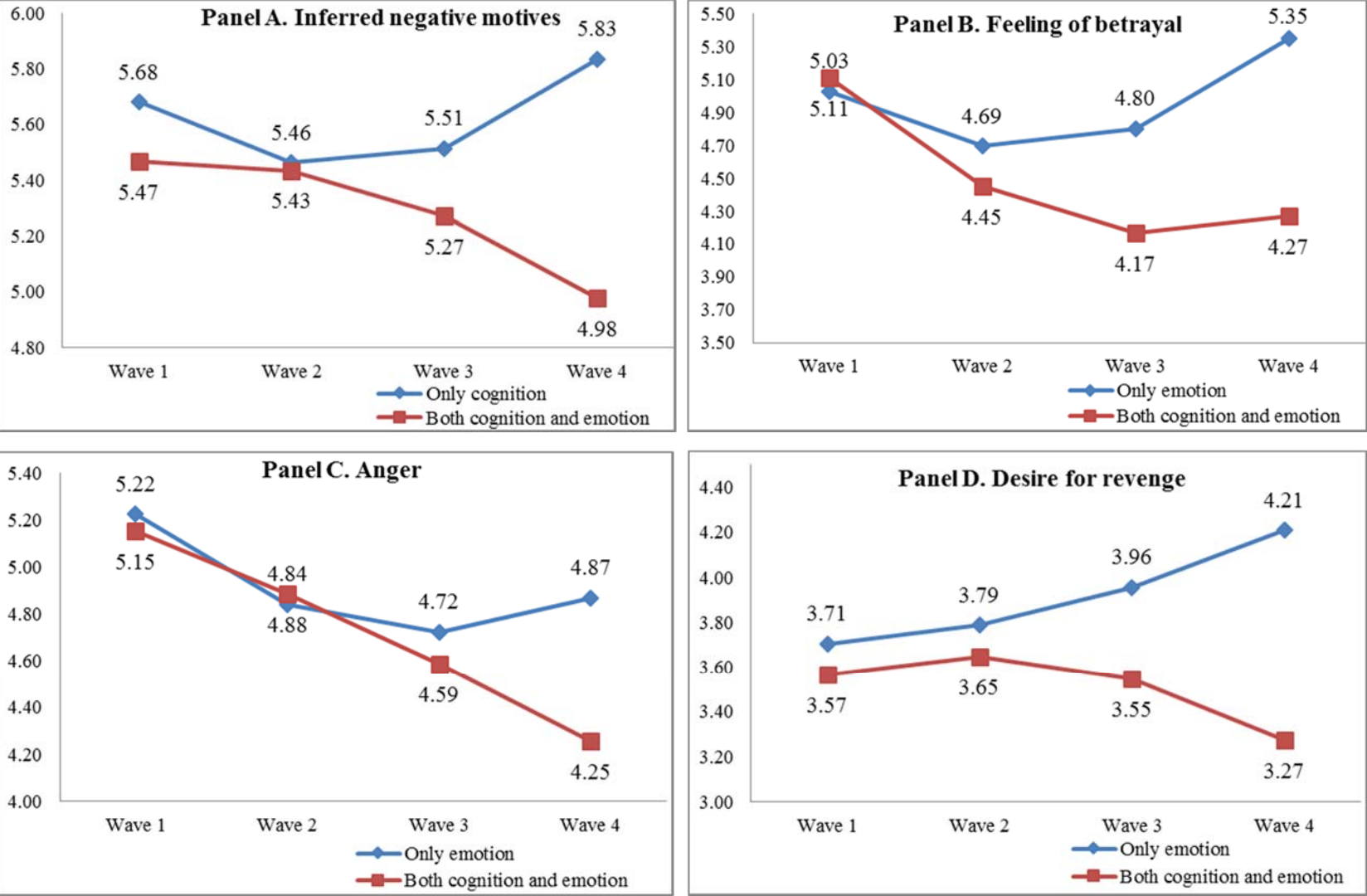
While the quadratic trend of anger in “survey of both emotion and cognition” (i.e., G5) was not significant, “survey of only emotion” condition (i.e., G7) was significant and positive (Estimate  $_{time^2} = .1316$ ;  $t[2548] = 7.41$ ;  $p < .0001$ ) and the time trend of anger in G7 was significant ( $t[2548] = -4.56$ ;  $p < .0001$ ) as well. In addition, we performed further analyses to learn the linear trend of anger in “survey of both emotions and cognitions” (i.e., G5). The results revealed that the linear trend of anger in G5 was significant and negative (Estimate  $_{time} = -.2915$ ;  $t[2550] = -.267$ ;  $p < .01$ ).

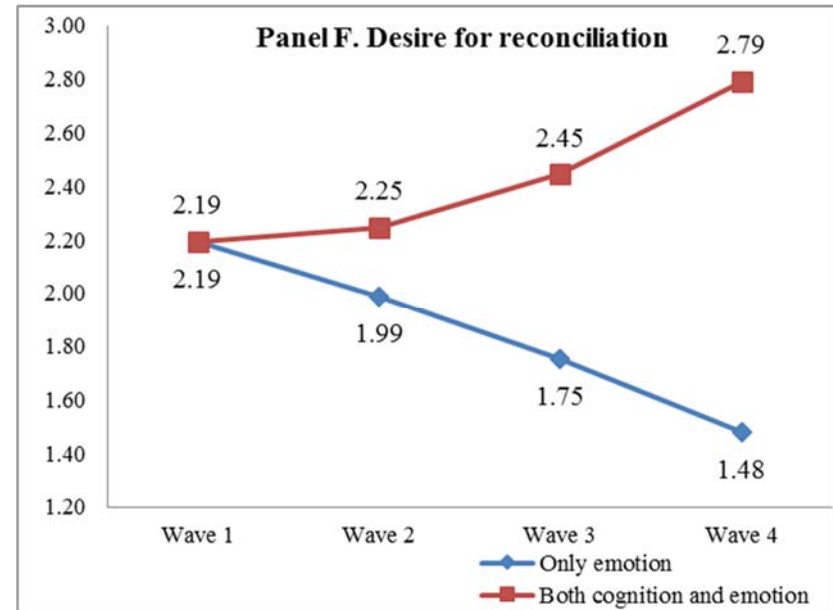
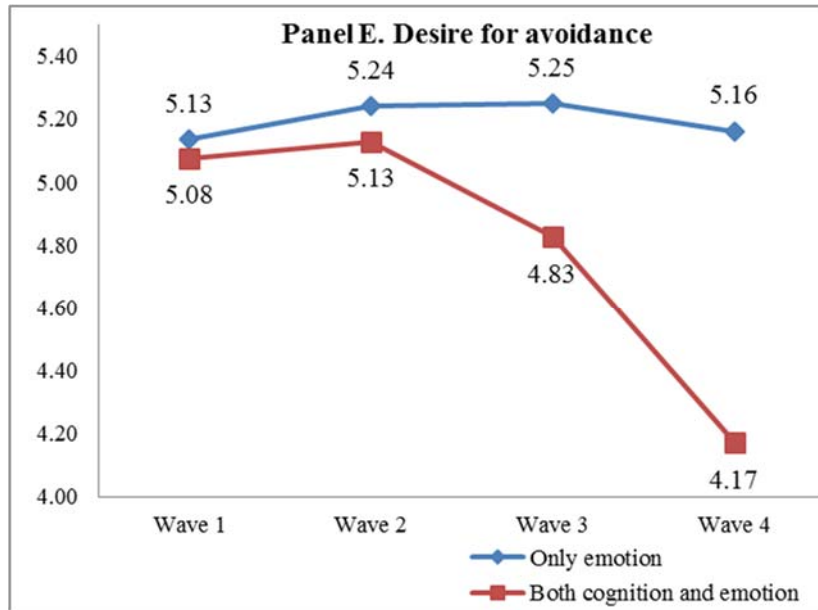
Performing *Quadratic test* for desire for revenge showed a significant interaction between G5 and G7 in a quadratic pattern which means that the two conditions followed different patterns ( $t[2547] = 4.59$ ;  $p < .0001$ ). It also showed that the quadratic trend of desire for revenge in G5 was significant and negative (Estimate  $_{time^2} = -.09$ ;  $t[2547] = -4.44$ ;  $p < .0001$ ). The time trend of desire for revenge G5 was not significant ( $t[2547] = 1.46$ ;  $p = .14$ ). In addition, the results confirmed that there was no significant difference in the level of desire for revenge between G5 and G7 at wave 1 ( $t[227] = .49$ ;  $p = .63$ ) (See Figure 3-11, panel D).

The *Quadratic test* comparing desire for avoidance between G5 and G7 conditions, showed a significant interaction in a quadratic pattern which means that in a quadratic trend the two conditions followed different patterns ( $t[2547] = 4.83$ ;  $p < .0001$ ). Second, it showed that the quadratic trend of desire for avoidance in G5 was significant and negative (Estimate  $_{time^2} = -.18$ ;  $t[2547] = -9.5$ ;  $p < .0001$ ). The time trend of desire for avoidance in G5 was not significant ( $t[2547] = 1.77$ ;  $p = .08$ ). Also, the results confirmed that there was no significant difference in the level of desire for avoidance between G5 and G7 at wave 1 ( $t[227] = .23$ ;  $p = .82$ ) (See Figure 3-11, panel E).

The results revealed a significant interaction between G5 and G7 in the *Quadratic test* for desire for reconciliation. It means that in a quadratic trend the desire for reconciliation of the two conditions followed different patterns ( $t[2434] = 3.66$ ;  $p < .0005$ ). Moreover, it showed that the quadratic trend of desire for reconciliation in G5 was significant and positive (Estimate  $\text{time}^2 = .07$ ;  $t[2434] = 4.54$ ;  $p < .0001$ ). The time trend of desire for reconciliation in G5 was not significant ( $t[2434] = -.15$ ;  $p = .88$ ). Also, the results confirmed that there was no significant difference in the level of desire for reconciliation between G1 and G5 at wave 1 ( $t[225] = .02$ ;  $p = .98$ ) (See Figure 3-11, panel F).

Figure 3-11. Comparing the quadratic pattern of revenge and reconciliation responses in pre-formatted survey conditions





### 3.6. General discussion

A double deviation (i.e., service failures followed by a poor recovery) is a critical issue to both customers and firms. It can irritate customers and make them experience intense negative emotions and thoughts which is unhealthy and dangerous for their well-being (Aquino et al., 2006; Bechwati & Morrin, 2003; Kivimäki et al., 2005; Stanton et al., 2000; Tepper, 2001). It also negatively affects firms' reputations and profit-making (Bechwati & Morrin, 2003; Bies & Tripp, 1996; Joireman et al., 2013). This research scrutinizes the effectiveness of different forms and contents of questionnaires over time. It gives an active role to aggrieved customers to control their revenge responses on their own. So, we proposed a conceptual model and tested a series of hypotheses through a longitudinal field experiment (See Table 3-11). At the broadest level, we were interested in finding the most appropriate form (i.e., expressive writings vs. pre-formatted surveys) and content (emotional vs. cognitive) of questionnaires that can reduce customer revenge responses the most over time. We were also interested to learn under which conditions (i.e., form and content of questionnaire) a desire for reconciliation can grow stronger. We were eager to demonstrate how form and content of questionnaires can promote a desire for reconciliation over revenge and avoidance over time. The analyses led us to six sets of hypotheses, which have been tested with real online complainers who experienced a double deviation. Table 3-11 summarizes the key contributions and results of the current research based on such hypotheses.

**Table 3-11. Summary of hypotheses, contributions and results**

Dependent variable	Hypothesis	Contribution	Status
<b>Inferred negative motives</b>	<b>H1a:</b> Customers' expressive writings about both cognitions and emotions regarding a double deviation experience over time is associated with less inferred negative motives than expressive writings about only cognitions or only emotions.	Inferred negative motives is fairly stable among those who participated in expressive writing conditions.	Not supported

Dependent variable	Hypothesis	Contribution	Status
	<b>H1b:</b> Customers' inferred negative motives is fairly stable over time even if they answer a series of pre-formatted questionnaires about their cognitions and emotions, or just their cognitions, or only their emotions regarding a double deviation experience.	Inferred negative motives is fairly stable between "survey of both cognition and emotion" and "survey of only cognition".	Partially Supported
	<b>H1c:</b> Expressive writings regarding a double deviation experience decrease customers' inferred negative motives more than answering pre-formatted surveys about a double deviation experience over time.	The level of inferred negative motives is the least for "control condition", "survey of both cognition and emotion" and "survey of only cognition".	Not supported
Feeling of betrayal	<b>H2a:</b> Customers' expressive writings about both cognitions and emotions regarding a double deviation experience over time is associated with less feeling of betrayal than expressive writings about only cognitions or only emotions.	Feeling of betrayal is fairly stable among those who participated in expressive writing conditions.	Not supported
	<b>H2b:</b> Customers' answering pre-formatted surveys about both cognitions and emotions regarding a double deviation experience over time is associated with less feeling of betrayal than answering pre-formatted surveys about only cognitions or only emotions.	Feeling of betrayal reduced the most for those who participated in "survey of both cognition and emotion".	Supported
	<b>H2c:</b> Expressive writings regarding a double deviation experience decrease customers' feeling of betrayal more than answering pre-formatted surveys about a double deviation experience over time.	The level of feeling of betrayal is the least for those who participated in "survey of both cognition and emotion".	Not supported
Anger	<b>H3a:</b> Customers' expressive writings about both cognitions and emotions regarding a double deviation experience over time is associated with less feeling of anger than expressive writings about only cognitions or only emotions.	Anger is fairly stable among those who participated in expressive writing conditions.	Not supported
	<b>H3b:</b> Customers' answering pre-formatted surveys about both cognitions and emotions regarding a double deviation experience over time is associated with less feeling of anger than answering pre-formatted surveys about only cognitions or only emotions.	Anger reduced the most for those who participated in "survey of both cognition and emotion".	Supported
	<b>H3c:</b> Expressive writings regarding a double deviation experience decrease customers' feeling of anger more than answering pre-formatted surveys about a double deviation experience over time.	The level of anger is the least for those who participated in "survey of both cognition and emotion".	Not supported
Desire for revenge	<b>H4a:</b> Customers' expressive writings about both cognitions and emotions regarding a double deviation experience over time is associated with less desire for revenge than	Desire for revenge is fairly stable between those who participated in "expressive writing of both cognition and emotion" and	Not supported

Dependent variable	Hypothesis	Contribution	Status
	expressive writings about only cognitions or only emotions.	“expressive writing of only emotion”.	
	<b>H4b:</b> Customers’ answering pre-formatted surveys about both cognitions and emotions regarding a double deviation experience over time is associated with less desire for revenge than answering pre-formatted surveys about only cognitions or only emotions.	Among survey conditions, desire for revenge reduced the most for those who participated in “survey of both cognition and emotion”.	Supported
	<b>H4c:</b> Expressive writings regarding a double deviation experience decrease customers’ desire for revenge more than answering pre-formatted surveys about a double deviation experience over time.	The level of desire for revenge is the least for those who participated in “survey of both cognition and emotion” and “control condition”.	Not supported
<b>Desire for avoidance</b>	<b>H5a:</b> Customers’ expressive writings about both cognitions and emotions regarding a double deviation experience over time is associated with less desire for avoidance than expressive writings about only cognitions or only emotions.	Desire for avoidance is fairly stable among those who participated in expressive writing conditions.	Not supported
	<b>H5b:</b> Customers’ answering pre-formatted surveys about both cognitions and emotions regarding a double deviation experience over time is associated with less desire for avoidance than answering pre-formatted surveys about only cognitions or only emotions.	Desire for avoidance reduced the most for those who participated in “survey of both cognition and emotion”.	Supported
	<b>H5c:</b> Expressive writings regarding a double deviation experience decrease customers’ desire for avoidance more than answering pre-formatted surveys about a double deviation experience over time.	The level of desire for avoidance is the least for those who participated in “survey of both cognition and emotion”.	Not supported
<b>Desire for reconciliation</b>	<b>H6a:</b> Customers’ expressive writings about both cognitions and emotions regarding a double deviation experience over time is associated with more desire for reconciliation than expressive writings about only cognitions or only emotions.	Desire for reconciliation is fairly stable among those who participated in expressive writing conditions.	Not supported
	<b>H6b:</b> Customers’ answering pre-formatted surveys about both cognitions and emotions regarding a double deviation experience over time is associated with more desire for reconciliation than answering pre-formatted surveys about only cognitions or only emotions.	Among survey conditions, desire for reconciliation increase the most for those who participated in “survey of both cognition and emotion”.	Supported
	<b>H6c:</b> Expressive writings regarding a double deviation experience increase customers’ desire for reconciliation more than answering pre-formatted surveys about a double deviation experience over time.	The level of desire for reconciliation is the most for those who participated in “survey of both cognition and emotion” and “control condition”.	Not supported



### **3.7. Theoretical contributions**

#### **3.7.1. Counterintuitive effects of expressive writings**

Previous research shows that experiencing customer revenge has several side effects on both firms (e.g., Bechwati & Morrin, 2003; Bies & Tripp, 1996; Joireman et al., 2013) and customers (e.g., Tepper, 2001, Greenberg, 2006, Kivimäki et al., 2005). Hence, firms need to learn effective solutions to reduce customer revenge responses to a “double deviation”. The current research explores how different forms of questionnaire (i.e., pre-formatted survey vs. expressive writing) can reduce customer revenge responses and promote reconciliation. Pre-formatted survey as a form of mere-measurement, has been applied in consumer context before. Results show that answering questions in the form of a survey can change customer behavior (Fitzsimons & Morwitz, 1996). Another form of mere-measurement, expressive writing, has been studied mostly in traumatic life events (i.e., death of loved one, childhood sexual abuse, and prison inmates) (Pennebaker, 1993; Richards et al., 2000; Stroebe et al., 2002) and physical illnesses (i.e., individuals diagnosed with asthma or rheumatoid arthritis, patients who have cancer) (de Moor et al., 2002; Smyth et al., 1999). Previous research shows that writing about a stressful experience improves physical and psychological health. To our knowledge, expressive writing has never been examined in a consumer context.

By comparing those who participated in expressive writing vs. pre-formatted survey, we better understand the effect of “forms” of questionnaires on real online complainers. Surprisingly, we find that the pre-formatted surveys reduce customer revenge responses more than expressive writing. Individuals who answered pre-formatted surveys reported significantly lower levels of inferred negative motives, betrayal, anger, desire for revenge, and desire for avoidance. Simultaneously, they show a higher level of desire for reconciliation. Even more surprisingly, we find that expressive writings amplify all customer revenge

responses compared to the control condition and survey forms, except for feeling of betrayal which is not significantly different from the control condition. Additionally, individuals who completed expressive writings over time reported significantly lower levels of desire for reconciliation ( $M_{\text{expressive writing conditions}} = 1.75$ ) compared to those who participated in a control condition ( $M_{\text{control conditions}} = 2.16$ ).

This may happen because of two main reasons. First, because the nature of a double deviation experience in consumer context is different from a traumatic life event. Traumatic life event is defined as an experience that an individual perceives or experiences as a threat to his or her safety or to the stability of his or her worlds (Norris, 1992). A traumatic life event can occupy an individual's mind more pervasively and more seriously compared to a double deviation experience in consumer context. A traumatic event such as a serious illness or an injury of a family member can involve a person inwardly in a way that it can pervasively affect all aspects of his life. An individual who experiences a traumatic life event has to deal with an unbearable level of negative thoughts and feelings. However, a double deviation experience may outwardly engage aggrieved customers cognitively and emotionally. Despite the high severity of a double deviation experience, it may not be considered as a threat to the life of an aggrieved customer. Also, it may not ruin the stability of an aggrieved customer's world. In other words, a double deviation experience in a consumer context may not dominantly occupy all aspects of their life. So, they may not be obliged to deal with the negative thoughts and feelings all the time.

The second reason is related to the nature of a double deviation and a traumatic life event that requires different forms of questionnaire. Pre-formatted survey and expressive writing are structurally two different forms of questionnaires. Pre-formatted survey is a structured questionnaire compared to the unstructured form of an expressive writing. Pre-formatted surveys which have been previously applied in customer revenge, structurally ask a series of questions that

are specifically designed for a double deviation situation. This may help aggrieved customers to elicit the specific thoughts and feelings that they experienced. In other words, it addresses exactly the dimensions that are involved in re-assessing a double deviation experience such as feelings of betrayal and anger, desire for revenge, and desire for avoidance. So, the results of this research suggest that individuals who answered pre-formatted surveys reported significantly lower levels of revenge responses and a higher level of desire for reconciliation.

On the other hand, expressive writing is less focused on a double deviation experience in consumer context than a pre-formatted survey. So, an aggrieved customer may focus on emotions and thoughts that are not necessarily helpful to him in re-assessing the double deviation experience. Whereas, an individual who experiences a traumatic life event has to deal with an unbearable level of thoughts and feelings. As such, he seriously feels the obligation to resolve the traumatic event or find an insight toward the problem. Expressive writing about a traumatic life event is an effective way to help an individual who reaches the maximum level of suffering and pain, and to cognitively and emotionally vent in his own words, and as a result gains an insight toward the problem (e.g., Graybeal et al., 1993; Pennebaker et al., 1990; Pennebaker & Seagal, 1999). All prior research, applied expressive writings on traumatic life events such as death of loved one, childhood sexual abuse, bereaved adults, and prison inmates that might be counted more severe and critical from customers perspective than a double deviation. Barclay and Skarlicki's (2009) research in organizational injustice shows that expressive writings regarding both thoughts and emotions reduce individuals' intentions to retaliate. However, they considered those employees who experienced very serious organizational unfairness such as being subject to racism or sexual harassment. In our claim, this is the first research that applies expressive writings in a consumer context. An aggrieved customer who answered expressive writing questionnaires may not sense the necessity to re-assess the double deviation experience deeply. That's because the level of his negative thoughts and feelings are more bearable compared to those of a traumatic life event. In other words, an aggrieved customer

may not want to engage in a process of an unstructured form of expressive writing that requires more energy and effort, since a double deviation experience may not dominantly occupy all aspects of his life. This may explain the amplification effect of expressive writings on online complainer. We suggest that the potent of a double deviation in a consumer context is not comparable with that of other traumatic life events, despite the high severity of the double deviation. Thus, aggrieved customers do not find expressive writings to be a useful tool in order to cognitively process the double deviation, vent their emotions and consequently gain an insight toward a double deviation.

In sum, the results of the current research suggest that pre-formatted surveys have strong healing effect compared to expressive writings when they are applied to aggrieved customers. This may happen because the nature of a double deviation experience is totally different from a traumatic life event. A double deviation experience may not occupy an individual's thoughts and feelings as seriously and pervasively as a traumatic life event. Also, pre-formatted survey structurally addresses the specific dimensions of a double deviations experience that may lead an individual to vent negative thoughts and feelings and consequently reduce revenge responses. Whereas, expressive writing in consumer context is more broad and unstructured and may lead to focus on unnecessary thoughts and feelings. So, it may lead customers to mentally retrieve and re-experience a double deviation, and reinforce ruminate and negative moods. So, it enhances customer revenge responses. Comparing the revenge and reconciliation responses of those who participated in different content conditions of expressive writings (i.e., cognitions only, emotions only, both cognitions and emotions) shows no significant difference among the conditions. This stability in revenge responses among conditions is additional evidence that aggrieved customers basically find expressive writing an inconvenient tool in managing their revenge.

### **3.7.2. Role of pre-formatted surveys of both cognitions and emotions**

Comparing the revenge and reconciliation responses of those who participated in different contents (i.e., both cognitions and emotions, cognitions only, emotions only) of pre-formatted surveys at wave 4 shed new light on understanding the effects of “contents” of questionnaires on real online complainers who experienced a double deviation. Our findings support the presence of catharsis effect of pre-formatted surveys of both cognitions and emotions on customer revenge responses. The level of feeling of betrayal, anger, desire for revenge and avoidance at wave 4 were significantly lowered when respondents completed multiple pre-formatted surveys about both their cognitions and emotions, compared to “surveys of emotions only” or “surveys of cognitions only”. The only exception was for inferred negative motives. We did not note any significant difference between those who participated in surveys of “only cognitions” and those of “both cognitions and emotions” conditions. Individuals who answered pre-formatted surveys of both cognitions and emotions over time reported significantly lower level of betrayal, anger, desire for avoidance as they also reported more level of desire for reconciliation. The only exception was for inferred negative motives and desire for revenge that the catharsis effects of “surveys of both cognitions and emotions” were not significantly different from the control condition.

These results give us confidence that the completion of pre-formatted surveys about both cognitions and emotions over time has a catharsis effect on customer revenge responses as it also give us hope that it promotes desire for reconciliation. The results provide enough evidence that pre-formatted surveys of both cognitions and emotions can serve as a venting mechanism for aggrieved customers to actively control their revenge responses on their own and enjoy the benefits of reconciliation.

### **3.7.3. The Shape of the Catharsis Effect**

Our findings generally support the presence of a catharsis effect on customer revenge responses for those who participated in pre-formatted surveys of both cognitions and emotions. Beyond the catharsis effect, the results show that the shape and intensity of the catharsis effects depend on the type of responses.

For all revenge responses the quadratic trend in pre-formatted surveys of both cognitions and emotions was significant and negative. The only exception was for feeling of betrayal. The quadratic trend in “survey of both cognitions and emotions” was significant and positive and for anger that the linear trend was significant and negative. Moreover, the quadratic trend of desire for reconciliation in pre-formatted surveys of both cognitions and emotions was significant and positive.

The time trend of “pre-formatted surveys of both cognitions and emotions” also depended on the type of responses (i.e., cognitions vs. emotions). The results show that the time trend of “pre-formatted survey of both cognitions and emotions” was significant only for emotional responses (i.e., feeling of betrayal and anger).

### **3.8. Managerial implications**

Is there an inexpensive solution that managers should apply toward the threat of online customer revenge? Despite the fact that customer revenge has received increasing attention in prior research (Grégoire et al., 2009; Haj-Salem & Chebat, 2013; Joireman et al., 2013; Zourrig et al., 2009), managers still seem bewildered when they encounter customers’ online public complaints. One of the reasons is that most of the managerial recommendations are related to the prevention of service failure and development of effective recovery strategies. Although these recommendations seem useful and appropriate, not all of them are applicable from a managerial point of view because sometimes the solutions are expensive. This research proposes an inexpensive simple solution to not only reduce customer revenge responses but also promote desire for reconciliation. More importantly, this solution is recommended because it involves aggrieved

customers as an entity and a resource to actively participate in a solution to control their revenge responses on their own.

The current research proposes that aggrieved customers should answer multiple pre-formatted surveys over time that ask about both their cognitions and emotions regarding the double deviation they have experienced. Answering pre-formatted surveys about both thoughts and emotions have catharsis “calming effect” on customer revengeful thoughts and emotions. It also promotes desire for reconciliation as well as allowing aggrieved customers to vent their negative emotions and make sense of the double deviation. In addition, choosing an appropriate form and content of the questionnaire is important because it may have counterintuitive effects on a customer’s revenge responses. The results of the current research show that expressive writings not only have catharsis effects but also have amplification effects on customer revenge responses.

### **3.9. Limitations and future research**

We consider three limitations of this research and consequently suggest directions for further research. First, our main limitation in performing a longitudinal field experiment with real online complainers was to have limited control over the response rate. Given the fact that we were interested to test the hypotheses in a real online setting, it is recommended to re-perform additional studies. In line with the limitation of high level of drop-off in respondents over time, we suggest that researchers re-perform this study in additional waves. This gives them an opportunity to learn more about the nonlinear patterns of customer revenge responses over time.

Second, this research only focuses on the effects of forms and contents of questionnaires on customer’ revenge responses. More attention should be devoted to the moderating effects of culture on intensity of the catharsis effects. It would be valuable to know the moderating effects of individual-level differences in cultural values (i.e., allocentrism and idiocentrism) (Zourrig et al., 2009) on the

relation between forms and contents of questionnaires and customer's revenge responses over time.

Third, this research focuses on customers' cognitive, emotional and desire responses following a double deviation. Further research should offer more complete examinations regarding their effects on behavioral responses (i.e., direct and indirect revenge behaviors) following a double deviation. In other words, further research should examine how differently forms and contents of questionnaires influence customers' direct revenge behaviors (e.g., vindictive complaining) vs. indirect ones (i.e., negative word of mouth, online complaining for negative publicity).



### 3.10. References

- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103(3), 411.
- Aquino, K., Tripp, T. M., & Bies, R. J. (2001). How employees respond to personal offense: the effects of blame attribution, victim status, and offender status on revenge and reconciliation in the workplace. *Journal of Applied Psychology*, 86(1), 52.
- Aquino, K., Tripp, T. M., & Bies, R. J. (2006). Getting even or moving on? Power, procedural justice, and types of offense as predictors of revenge, forgiveness, reconciliation, and avoidance in organizations. *Journal of Applied Psychology*, 91(3), 653.
- Barclay, L. J., & Skarlicki, D. P. (2009). Healing the wounds of organizational injustice: examining the benefits of expressive writing. *Journal of Applied Psychology*, 94(2), 511.
- Bechwati, N., & Morrin, M. (2003). Outraged consumers: Getting even at the expense of getting a good deal. *Journal of Consumer Psychology*, 13(4).
- Bhattacharya, C. B., Rao, H., & Glynn, M. A. (1995). Understanding the bond of identification: An investigation of its correlates among art museum... *Journal of Marketing*, 59(4).
- Bies, R. J., & Tripp, T. M. (1996). Beyond distrust: "getting even" and the need for revenge.
- Bitner, M. J., Booms, B. H., & Tetreault, M. S. (1990). The service encounter: Diagnosing favorable and unfavorable incidents. *Journal of Marketing*, 54(1).
- Bolton, R. N., & Lemon, K. N. (1999). A Dynamic Model of Customers' Usage of Services: Usage as an Antecedent and Consequence of Satisfaction. *Journal of Marketing Research (JMR)*, 36(2).
- Bonifield, C., & Cole, C. (2007). Affective responses to service failure: Anger, regret, and retaliatory versus conciliatory responses. *Marketing Letters*, 18(1-2), 85–99.
- Booth-Kewley, S., & Friedman, H. S. (1987). Psychological predictors of heart disease:

- a quantitative review. *Psychological Bulletin*, 101(3), 343.
- Bougie, R., Pieters, R., & Zeelenberg, M. (2003). Angry customers don't come back, they get back: the experience and behavioral implications of anger and dissatisfaction in services. *Journal of the Academy of Marketing Science*, 31(4), 377–393.
- Bushman, B. J., Baumeister, R. F., & Stack, A. D. (1999). Catharsis, aggression, and persuasive influence: Self-fulfilling or self-defeating prophecies? *Journal of Personality and Social Psychology*, 76(3), 367.
- Campbell, M. C. (1999). Perceptions of price unfairness: Antecedents and consequences. *Journal of Marketing Research (JMR)*, 36(2).
- Chebat, J. C., & Slusarczyk, W. (2005). How emotions mediate the effects of perceived justice on loyalty in service recovery situations: an empirical study. *Journal of Business Research*, 58(5), 664–673.
- De Moor, C., Sterner, J., Hall, M., Warneke, C., Gilani, Z., Amato, R., & Cohen, L. (2002). A pilot study of the effects of expressive writing on psychological and behavioral adjustment in patients enrolled in a Phase II trial of vaccine therapy for metastatic renal cell carcinoma. *Health Psychology*, 21(6), 615.
- Elangovan, A. R., & Shapiro, D. L. (1998). Betrayal of trust in organizations. *Academy of Management Review*, 23(3), 547–566.
- Fitzmaurice, L., Laird, N. M., & James, H. (2004). *Ware (2004). Applied longitudinal analysis*. Wiley & Sons.
- Fitzsimons, G. J., & Moore, S. G. (2008). Should we ask our children about sex, drugs and rock & roll?: Potentially harmful effects of asking questions about risky behaviors. *Journal of Consumer Psychology: The Official Journal of the Society for Consumer Psychology*, 18(2), 82.
- Fitzsimons, G. J., & Morwitz, V. G. (1996). The effect of measuring intent on brand-level purchase behavior. *Journal of Consumer Research*, 1–11.
- Fitzsimons, G. J., & Morwitz, V. G. (1996). The effect of measuring intent on brand-level purchase behavior. *Journal of Consumer Research*, 1–11.

- Gornbein, J. A., Lazaro, C. G., & Little, R. J. (1992). Incomplete data in repeated measures analysis. *Statistical Methods in Medical Research*, 1(3), 275–295.
- Graybeal, A., Sexton, J. D., & Pennebaker, J. W. (2002). The role of story-making in disclosure writing: The psychometrics of narrative. *Psychology and Health*, 17(5), 571–581.
- Greenberg, J. (2006). Losing sleep over organizational injustice: attenuating insomniac reactions to underpayment inequity with supervisory training in interactional justice. *Journal of Applied Psychology*, 91(1), 58.
- Greenwald, A. G., Carnot, C. G., Beach, R., & Young, B. (1987). Increasing voting behavior by asking people if they expect to vote. *Journal of Applied Psychology*, 72(2), 315.
- Grégoire, Y., & Fisher, R. J. (2008). Customer betrayal and retaliation: when your best customers become your worst enemies. *Journal of the Academy of Marketing Science*, 36(2), 247–261.
- Grégoire, Y., Laufer, D., & Tripp, T. M. (2010). A comprehensive model of customer direct and indirect revenge: understanding the effects of perceived greed and customer power. *Journal of the Academy of Marketing Science*, 38(6), 738–758.
- Grégoire, Y., Tripp, T. M., & Legoux, R. (2009). When customer love turns into lasting hate: the effects of relationship strength and time on customer revenge and avoidance. *Journal of Marketing*, 73(6), 18–32.
- Haj-Salem, N., & Chebat, J. C. (2013). The double-edged sword: The positive and negative effects of switching costs on customer exit and revenge. *Journal of Business Research*.
- Harris, L. C., & Reynolds, K. L. (2004). Jaycustomer behavior: an exploration of types and motives in the hospitality industry. *Journal of Services Marketing*, 18(5), 339–357.
- Horowitz, M. J. (1997). *Stress response syndromes: PTSD, grief, and adjustment disorders*. Jason Aronson.
- Institute, S. A. S. (2011). *SAS 9.3 Output Delivery System: User's Guide*. SAS institute.
- Janoff-Bulman, R. (2010). *Shattered assumptions*. Simon and Schuster.

- Joireman, J., Grégoire, Y., Devezer, B., & Tripp, T. M. (2013). When do customers offer firms a “second chance” following a double deviation? The impact of inferred firm motives on customer revenge and reconciliation. *Journal of Retailing*, 89(3), 315–337.
- Jones, M. A., Reynolds, K. E., Mothersbaugh, D. L., & Beatty, S. E. (2007). The positive and negative effects of switching costs on relational outcomes. *Journal of Service Research*, 9(4), 335–355.
- Kivimäki, M., Ferrie, J. E., Brunner, E., Head, J., Shipley, M. J., Vahtera, J., & Marmot, M. G. (2005). Justice at work and reduced risk of coronary heart disease among employees: the Whitehall II Study. *Archives of Internal Medicine*, 165(19), 2245–2251.
- Koehler, J. J., & Gershoff, A. D. (2003). Betrayal aversion: When agents of protection become agents of harm. *Organizational Behavior and Human Decision Processes*, 90(2), 244–261.
- Lazarus, R. S. (1991). Progress on a cognitive-motivational-relational theory of emotion. *American Psychologist*, 46(8), 819.
- Lepore, S. J., Greenberg, M. A., Bruno, M., & Smyth, J. M. (2002). Expressive writing and health: Self-regulation of emotion-related experience, physiology, and behavior.
- Lepore, S. J., & Smyth, J. M. (2002). *The writing cure: How expressive writing promotes health and emotional well-being*. American Psychological Association.
- Norris, F. H. (1992). Epidemiology of trauma: frequency and impact of different potentially traumatic events on different demographic groups. *Journal of Consulting and Clinical Psychology*, 60(3), 409.
- MacDonald, G., & Leary, M. R. (2005). Why does social exclusion hurt? The relationship between social and physical pain. *Psychological Bulletin*, 131(2), 202.
- MacInnis, D. J., & Chun, H. E. (2007). *Understanding hope and its implications for consumer behavior: I hope, therefore I consume*. Now Publishers Inc.
- Maxham, J. G., & Netemeyer, R. G. (2002). Modeling customer perceptions of complaint handling over time: the effects of perceived justice on satisfaction and intent.

- Journal of Retailing*, 78(4), 239–252.
- McColl-Kennedy, J. R., Patterson, P. G., Smith, A. K., & Brady, M. K. (2009). Customer rage episodes: emotions, expressions and behaviors. *Journal of Retailing*, 85(2), 222–237.
- McCullough, M. E. (2008). *Beyond revenge: The evolution of the forgiveness instinct*. John Wiley & Sons.
- McCullough, M. E., Bono, G., & Root, L. M. (2007). Rumination, emotion, and forgiveness: three longitudinal studies. *Journal of Personality and Social Psychology*, 92(3), 490.
- McCullough, M. E., Fincham, F. D., & Tsang, J.-A. (2003). Forgiveness, forbearance, and time: the temporal unfolding of transgression-related interpersonal motivations. *Journal of Personality and Social Psychology*, 84(3), 540.
- McCullough, M. E., Rachal, K. C., Sandage, S. J., Worthington Jr, E. L., Brown, S. W., & Hight, T. L. (1998). Interpersonal forgiving in close relationships: II. Theoretical elaboration and measurement. *Journal of Personality and Social Psychology*, 75(6), 1586.
- Morgan, R. M., & Hunt, S. D. (1994). The commitment-trust theory of relationship marketing. *Journal of Marketing*, 58(3).
- Morwitz, V. G., & Fitzsimons, G. J. (2004). The mere-measurement effect: Why does measuring intentions change actual behavior? *Journal of Consumer Psychology*, 14(1), 64–74.
- Morwitz, V., Johnson, E. J., & Schmittlein, D. (1993). Does measuring intent change behavior? *Journal of Consumer Research*, 20, 46–61.
- Nguyen, D. T., & McColl-Kennedy, J. R. (2003). Diffusing customer anger in service recovery: A conceptual framework. *Australasian Marketing Journal (AMJ)*, 11(2), 46–55.
- Nolen-Hoeksema, S. (1991). Responses to depression and their effects on the duration of depressive episodes. *Journal of Abnormal Psychology*, 100(4), 569.
- Nunnally, J. C. (1978). *Psychometric theory*. New York: McGraw-Hill.
- Oliver, R. L., & Swan, J. E. (1989). Equity and disconfirmation perceptions as influences

- on merchant and product satisfaction. *Journal of Consumer Research*, 16(3), 372.
- Pearl, J. (2009). Causal inference in statistics: An overview. *Statistics Surveys*, 3, 96–146.
- Pennebaker, J. W. (1989). Confession, inhibition, and disease. *Advances in Experimental Social Psychology*, 22, 211–244.
- Pennebaker, J. W. (1990). Opening up: The healing power of confiding in others.
- Pennebaker, J. W. (1993). Putting stress into words: Health, linguistic, and therapeutic implications. *Behaviour Research and Therapy*, 31(6), 539–548.
- Pennebaker, J. W. (1997). Writing about emotional experiences as a therapeutic process. *Psychological Science*, 8(3), 162–166.
- Pennebaker, J. W., & Beall, S. K. (1986). Confronting a traumatic event: toward an understanding of inhibition and disease. *Journal of Abnormal Psychology*, 95(3), 274.
- Pennebaker, J. W., Colder, M., & Sharp, L. K. (1990). Accelerating the coping process. *Journal of Personality and Social Psychology*, 58(3), 528.
- Pennebaker, J. W., & Seagal, J. D. (1999). Forming a story: The health benefits of narrative. *Journal of Clinical Psychology*, 55(10), 1243–1254.
- Penttila, C. (2005). Angry customers are using the internet to get revenge: how can you keep them happy? *Entrepreneur Magazine*, Available at: [Www. Entrepreneur.com/magazine/entrepreneur/2005/april/issue116068. Html](http://www.Entrepreneur.com/magazine/entrepreneur/2005/april/issue116068.Html) (accessed September 30, 2009).
- Pinheiro, J. C., & Bates, D. M. (2000). *Mixed effects models in S and S-PLUS*. Springer.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879.
- Reeder, G. D., Kumar, S., Hesson-McInnis, M. S., & Trafimow, D. (2002). Inferences about the morality of an aggressor: the role of perceived motive. *Journal of Personality and Social Psychology*, 83(4), 789.
- Reeder, G. D., Pryor, J. B., Wohl, M. J., & Griswell, M. L. (2005). On attributing negative motives to others who disagree with our opinions. *Personality and Social*

- Psychology Bulletin*, 31(11), 1498–1510.
- Richards, J. M., Beal, W. E., Seagal, J. D., & Pennebaker, J. W. (2000). Effects of disclosure of traumatic events on illness behavior among psychiatric prison inmates. *Journal of Abnormal Psychology*, 109(1), 156.
- Richins, M. L. (1997). Measuring emotions in the consumption experience. *Journal of Consumer Research*, 24(2), 127–146.
- Russell, D. (1982). The Causal Dimension Scale: A measure of how individuals perceive causes. *Journal of Personality and Social Psychology*, 42(6), 1137.
- Schoefer, K., & Ennew, C. (2005). The impact of perceived justice on consumers' emotional responses to service complaint experiences. *Journal of Services Marketing*, 19(5), 261–270.
- Schwarz, N., & Clore, G. L. (1983). Mood, misattribution, and judgments of well-being: Informative and directive functions of affective states. *Journal of Personality and Social Psychology*, 45(3), 513.
- Sharma, N., & Patterson, P. G. (2000). Switching costs, alternative attractiveness and experience as moderators of relationship commitment in professional, consumer services. *International Journal of Service Industry Management*, 11(5), 470–490.
- Shaver, P., Schwartz, J., Kirson, D., & O'Connor, C. (1987). Emotion knowledge: further exploration of a prototype approach. *Journal of Personality and Social Psychology*, 52(6), 1061.
- Sherman, S. J. (1980). On the self-erasing nature of errors of prediction. *Journal of Personality and Social Psychology*, 39(2), 211.
- Singer, J. D. (1998). Using SAS PROC MIXED to fit multilevel models, hierarchical models, and individual growth models. *Journal of Educational and Behavioral Statistics*, 23(4), 323–355.
- Sloan, D. M., & Marx, B. P. (2004). Taking pen to hand: Evaluating theories underlying the written disclosure paradigm. *Clinical Psychology: Science and Practice*, 11(2), 121–137.
- Smith, A. K., Bolton, R. N., & Wagner, J. (1999). A model of customer satisfaction with service encounters involving failure and recovery. *Journal of Marketing*

*Research*, 356–372.

- Smyth, J. M., Stone, A. A., Hurewitz, A., & Kaell, A. (1999). Effects of writing about stressful experiences on symptom reduction in patients with asthma or rheumatoid arthritis: a randomized trial. *Jama*, 281(14), 1304–1309.
- Smyth, J. M., True, N., & Souto, J. (2001). Effects of writing about traumatic experiences: The necessity for narrative structuring. *Journal of Social and Clinical Psychology*, 20(2), 161–172.
- Spangenberg, E. R., & Greenwald, A. G. (1999). Social influence by requesting self-prophecy. *Journal of Consumer Psychology*, 8(1), 61–89.
- Spera, S. P., Buhrfeind, E. D., & Pennebaker, J. W. (1994). Expressive writing and coping with job loss. *Academy of Management Journal*, 37(3), 722–733.
- Sprott, D. E., Spangenberg, E. R., Block, L. G., Fitzsimons, G. J., Morwitz, V. G., & Williams, P. (2006). The question–behavior effect: What we know and where we go from here. *Social Influence*, 1(2), 128–137.
- Sprott, D. E., Spangenberg, E. R., & Fisher, R. (2003). The importance of normative beliefs to the self-prophecy effect. *Journal of Applied Psychology*, 88(3), 423.
- Stanton, A. L., Danoff-Burg, S., Cameron, C. L., Bishop, M., Collins, C. A., Kirk, S. B., Twillman, R. (2000). Emotionally expressive coping predicts psychological and physical adjustment to breast cancer. *Journal of Consulting and Clinical Psychology*, 68(5), 875.
- Stephens, A., & Vögele, C. (1986). Are stress responses influenced by cognitive appraisal? An experimental comparison of coping strategies. *British Journal of Psychology*, 77(2), 243–255.
- Strizhakova, Y., Tsarenko, Y., & Ruth, J. A. (2012). “I’m mad and ican’t get that service failure off my mind” Coping and Rumination as Mediators of Anger Effects on Customer Intentions. *Journal of Service Research*, 15(4), 414–429.
- Stroebe, M., Stroebe, W., Schut, H., Zech, E., & van den Bout, J. (2002). Does disclosure of emotions facilitate recovery from bereavement? Evidence from two prospective studies. *Journal of Consulting and Clinical Psychology*, 70(1), 169.
- Tax, S. S., & Brown, S. W. (1998). Recovering and learning from service failure. *Sloan*



- Management Review*, 40(1), 75–88.
- Tax, S. S., Brown, S. W., & Chandrashekar, M. (1998). Customer evaluations of service complaint experiences: Implications for relationship marketing. *Journal of Marketing*, 62(2).
- Tepper, B. J. (2001). Health consequences of organizational injustice: Tests of main and interactive effects. *Organizational Behavior and Human Decision Processes*, 86(2), 197–215.
- Thomson, M., MacInnis, D. J., & Whan Park, C. (2005). The ties that bind: Measuring the strength of consumers' emotional attachments to brands. *Journal of Consumer Psychology*, 15(1), 77–91.
- Tripp, T. M., & Bies, R. J. (2009). *Getting Even: The Truth About Workplace Revenge--And How to Stop It*. John Wiley & Sons.
- Tripp, T. M., Grégoire, Y., & Business, S. (2011). When unhappy customers strike back on the Internet.
- Wegman, C. (1985). *Psychoanalysis and cognitive psychology: A formalization of Freud's earliest theory*. Academic Press London.
- Wirtz, J., & Mattila, A. S. (2004). Consumer responses to compensation, speed of recovery and apology after a service failure. *International Journal of Service Industry Management*, 15(2), 150–166.
- Zeithaml, V. A., Berry, L. L., & Parasuraman, A. (1988). Communication and control processes in the delivery of service quality. *Journal of Marketing*, 52(2).
- Zourrig, H., Chebat, J. C., & Toffoli, R. (2009). Consumer revenge behavior: a cross-cultural perspective. *Journal of Business Research*, 62(10), 995–1001.

### 3.11. Appendices

#### 3.11.1. Appendix 1: Scales

Construct	Scales
Inferred negative motives	- The service firm... ... had good intentions (1) -... had bad intentions (7) ...did not intend to take advantage of me (1) -... intended to take advantage of me (7) ...did not try to abuse me (1) -...tried to abuse me (7) ...was primarily motivated by my interest (1) -...was primarily motivated by its own interest (7)
Feeling of betrayal	Currently, I feel... ...betrayed by the service firm. ...cheated by the service firm. ...the service firm broke the promise made to me. ...my confidence in the service firm is violated. ...the service firm let me down in a moment of need. ..."stabbed in the back" by the service firm.
Anger	<u>At the current moment</u> I feel... ...mad ...furious ...outraged ...resentful ...angry
Desire for revenge	<u>At the current moment</u> I want to... ...take actions to get the service firm in trouble. ...punish the service firm in some way. ...cause inconvenience to the service firm. ...get even with the service firm. ...make the service firm get what it deserved.
Desire for avoidance	<u>At the current moment</u> I want to... ...keep as much distance as possible between the service firm and me. ...live as the service firm doesn't exist, isn't around. ...avoid frequenting the service firm. ...cut off the relationship with the service firm. ...withdraw my business from the service firm.
Desire for reconciliation	<u>At the current moment</u> I want to... ...give the firm back a new start, a renewed relationship. ...accept the humanness, flaws, and failures of the firm. ...try to make amends toward the firm. ...accept the firm despite what happened. ...try to make an effort to be more friendly and concerned toward the firm.

### 3.11.2. Appendix 2: ConsumerAffairs.com questionnaires

#### 3.11.2.1. Post-intervention questionnaire

Dear contributor to ConsumerAffairs.com,

So far, you completed three questionnaires about the service failure you experienced that led you to write a review to ConsumerAffairs.com. Thank you for participating in this research project!

Today, you are invited to participate in the **last questionnaire (phase 4)** that organized by HEC Montreal, in collaboration with ConsumerAffairs.com. Before start answering the survey, please recall the same service failure you experienced that led you to write a review to ConsumerAffairs.com and answer the questions according to that service experience during the entire study. By **service failure** we mean the situation in which the service firm failed to service you adequately that created you some dissatisfaction.

This survey takes about **5 - 10 minutes** to complete. You have to complete this questionnaire by **Saturday, December 14, 2013**. If you qualify and complete this questionnaire, you will be eligible to win one of **six iPad mini** in our contest.

This research project is **voluntary and confidential**. If you agree to participate, you are free not to answer any question you may find objectionable. However, every response is important, so please complete the entire survey. **The success of this project depends on your help!** The results of the research will be strictly used for academic purposes and to provide information to ConsumerAffairs.com. Please answer the questions as honestly as possible.

This study has been reviewed and approved by the HEC-Montreal “Le Comité d'éthique de la recherche (CER)”. If you have questions about this study, please contact Mina Rohani (PhD Candidate) at +1-514 340-6733 or [mina.rohani@hec.ca](mailto:mina.rohani@hec.ca), or Professor Yany Gregoire at 514 340-1493, or [yany.gregoire@hec.ca](mailto:yany.gregoire@hec.ca).

**Thank you for your help!**

Do you agree to participate in this research? ☐ I agree ☐ I do NOT agree

#### **PART 1: DESCRIPTION OF THE FAILURE**

Since you posted a review on ConsumerAffairs.com, was the service failure resolved to your satisfaction? ☐ yes ☐ no

Since you posted a review on ConsumerAffairs.com, did you give up on having the service failure resolved to your satisfaction? ☐ yes ☐ no

#### **PART 2: YOUR SERVICE FAILURE EXPERIENCE**

**This part of the survey asks you questions about the service failure you experienced**

that you described in your **ConsumerAffairs.com** review.

Reflecting on your service failure experience with the firm, please indicate your **current** level of agreement with the following statements.

The service firm caused me...

...minor problems 1	2	3	4	5	6	...major problems 7
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

...small inconveniences 1	2	3	4	5	6	...big inconveniences 7
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

...minor aggravation 1	2	3	4	5	6	...major aggravation 7
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Overall, the service firm is...

... not at all responsible for the service failure 1	2	3	4	5	6	... totally responsible for the service failure 7
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

...in no way the service firm's fault 1	2	3	4	5	6	...completely the service firm's fault 7
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

To what extent do you blame the service firm for what happened?

Not at all 1	2	3	4	5	6	Completely 7
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The service firm...

... had  
good  
intentions

1

☐

2

☐

3

☐

4

☐

5

☐

6

☐

... had bad  
intentions

7

☐

...did not  
intend to take  
advantage of  
me

1

☐

2

☐

3

☐

4

☐

5

☐

6

☐

... intended  
to take  
advantage  
of me

7

☐

...did not try  
to abuse me

1

☐

2

☐

3

☐

4

☐

5

☐

6

☐

...tried to  
abuse me

7

☐

...was  
primarily  
motivated by  
my interest

1

☐

2

☐

3

☐

4

☐

5

☐

6

☐

...was  
primarily  
motivated by  
its own interest

7

☐

Reflecting on your service failure experience with the firm, please indicate your **current** level of agreement with the following statements.

	Strongly <b>Disagree</b>				Strongly Agree		
...I feel betrayed by the service firm.	1	2	3	4	5	6	7
...I feel cheated by the service firm.	1	2	3	4	5	6	7
...the service firm broke the promise made to me.	1	2	3	4	5	6	7
...my confidence in the service firm is violated.	1	2	3	4	5	6	7
...the service firm let me down in a moment of need.	1	2	3	4	5	6	7
...I feel "stabbed in the back" by the service firm.	1	2	3	4	5	6	7

Thinking of the service failure, at the current moment I feel...

	Strongly <b>Disagree</b>				Strongly Agree		
...mad.	1	2	3	4	5	6	7
...furious.	1	2	3	4	5	6	7
...outraged.	1	2	3	4	5	6	7
...resentful.	1	2	3	4	5	6	7
...angry.	1	2	3	4	5	6	7

Thinking of the service failure, at the current moment I feel...

	Strongly <b>Disagree</b>				Strongly Agree			
...excluded by the service firm.	1	2	3	4	5	6	7	
...ignored by the service firm.	1	2	3	4	5	6	7	
...rejected by the service firm.	1	2	3	4	5	6	7	
...like the service firm did not value our relationship.	1	2	3	4	5	6	7	

Reflecting on my service failure experience with the service firm, currently I want to...

	Strongly <b>Disagree</b>				Strongly Agree			
...take actions to get the service firm in trouble.	1	2	3	4	5	6	7	
...punish the service firm in some way.	1	2	3	4	5	6	7	
...cause inconvenience to the service firm.	1	2	3	4	5	6	7	
...get even with the service firm.	1	2	3	4	5	6	7	
...make the service firm get what it deserved.	1	2	3	4	5	6	7	
...keep as much distance as possible between the service firm and me.	1	2	3	4	5	6	7	
...live as the service firm doesn't exist, isn't around.	1	2	3	4	5	6	7	
...avoid frequenting the service firm.	1	2	3	4	5	6	7	
...cut off the relationship with the service firm.	1	2	3	4	5	6	7	
...withdraw my business from the service firm.	1	2	3	4	5	6	7	
...give the firm back a new start, a renewed relationship.	1	2	3	4	5	6	7	
...accept the humanness, flaws, and failures of the firm.	1	2	3	4	5	6	7	
...try to make amends toward the firm.	1	2	3	4	5	6	7	
...accept the firm despite what happened.	1	2	3	4	5	6	7	
...try to make an effort to be more friendly and concerned toward the firm.	1	2	3	4	5	6	7	

Thinking of the service failure, at the current moment I want to complain to the service firm to...

	Strongly <b>Disagree</b>				Strongly Agree			
...give a hard time to the representatives.	1	2	3	4	5	6	7	
...be unpleasant with the representatives of the company.	1	2	3	4	5	6	7	
...make someone from the organization suffer for their services.	1	2	3	4	5	6	7	
...say rude things to the frontline employees.	1	2	3	4	5	6	7	

Reflecting on the service failure I experienced with the service firm, currently I want to ...

	Strongly <b>Disagree</b>				Strongly Agree			
...damage property belonging to the service firm.	1	2	3	4	5	6	7	

...deliberately bend or break the policies of the service firm.	1	2	3	4	5	6	7
...show signs of impatience and frustration to someone from the firm.	1	2	3	4	5	6	7
...hit something or slam a door in front of (an) employee(s).	1	2	3	4	5	6	7

### **PART 3: AFTER SERVICE FAILURE**

**This part of the survey asks you questions about the thoughts and actions that followed the service failure.**

Reflecting on your service failure experience with the service firm, please indicate the frequency with which you have had the following experiences during the past 7 days.

	Not at all				Extremely		
	1	2	3	4	5	6	7
I couldn't stop thinking about what the service firm did to me.	1	2	3	4	5	6	7
Thoughts and feelings about how the service firm hurt me kept running through my head.	1	2	3	4	5	6	7
Strong feelings about what the service firm did to me kept bubbling up.	1	2	3	4	5	6	7
Images of the service failure kept coming back to me.	1	2	3	4	5	6	7
<u>During the past 7 days...</u>							

	Strongly Disagree				Strongly Agree		
	1	2	3	4	5	6	7
...I spread negative word-of-mouth about the service firm.	1	2	3	4	5	6	7
...I bad-mouthed against the service firm to my friends.	1	2	3	4	5	6	7
...when my friends were looking for a similar product or service, I told them not to buy from the service firm.	1	2	3	4	5	6	7
...I spent less money at this business.	1	2	3	4	5	6	7
...I stopped doing business with the service firm.	1	2	3	4	5	6	7
...I reduced frequency of interaction with the service firm.	1	2	3	4	5	6	7
...I brought a significant part of my business to a competitor.	1	2	3	4	5	6	7

Reflecting on my service failure experience with the service firm, currently I...

	Strongly Disagree				Strongly Agree		
	1	2	3	4	5	6	7
...have a desire to reconnect with the service firm.	1	2	3	4	5	6	7
...feel a longing to re-establish the relationship with the service firm.	1	2	3	4	5	6	7
...feel that the relationship with the service firm is valuable.	1	2	3	4	5	6	7
...feel confident that I will re-establish the relationship with the service firm.	1	2	3	4	5	6	7

### **PART 4: PERSONAL INFORMATION**

Please indicate to what extent you feel this way at the current moment.

	Not At all				A great deal		
Distressed.	1	2	3	4	5	6	7
Upset.	1	2	3	4	5	6	7
Scared.	1	2	3	4	5	6	7
Hostile.	1	2	3	4	5	6	7
Irritable.	1	2	3	4	5	6	7
Ashamed.	1	2	3	4	5	6	7
Guilty.	1	2	3	4	5	6	7
Nervous.	1	2	3	4	5	6	7
Jittery.	1	2	3	4	5	6	7
Afraid.	1	2	3	4	5	6	7

Please indicate your gender: ☐ Female

☐ Male

What is your age? \_\_\_\_\_

What is your mother tongue? ☐ English

☐ Others

What is your email address? \_\_\_\_\_

**Thank You Very Much For Your Help!**



### 3.11.2.2. Expressive writing- Both cognitions and emotions-Wave3

Dear contributor to ConsumerAffairs.com,

So far, you completed two questionnaires about the service failure you experienced that led you to write a review to ConsumerAffairs.com. Thank you for your participation!

Today, you are invited to participate in the third questionnaire (phase 3) that organized by HEC Montreal, in collaboration with ConsumerAffairs.com. This study asks you to write about your **current emotions, and thoughts** surrounding the same service failure you experienced that led you to write a review to ConsumerAffairs.com. By **service failure** we mean the situation in which the service firm failed to service you adequately that created some dissatisfaction for you.

This questionnaire takes approximately **15 minutes** to complete. You have to complete this questionnaire by **Saturday, December 7, 2013**. The follow-up questionnaire will be emailed to you next week after completion of this questionnaire (i.e., 9 December). If you qualify and complete all four questionnaires, you will be eligible to win one of **six iPad mini** in our contest.

Before start answering the questionnaire, please recall the same service failure you experienced that led you to write a complaint to ConsumerAffairs.com. After recalling the service failure, we want you to write us your **current THOUGHTS** and **FEELINGS** regarding that service failure experience. In your writing, we would like you to explore your deepest **emotions** (e.g., I feel...) and **thoughts** (e.g., “I think that...”; “I believe that...”). Don’t worry about spelling, sentence structure, grammar, or punctuation. The only rule is that once you begin writing, you continue to do so until **10 MINUTES** is up.

This research project is **voluntary and confidential**. If you agree to participate, you are free not to answer any question you may find objectionable. However, every response is important, so please complete the entire questionnaire. The success of this project depends on your help! The results of the research will be strictly used for academic purposes and to provide information to ConsumerAffairs.com.

This study has been reviewed and approved by the HEC-Montreal “Le Comité d’éthique de la recherche (CER)”. If you have questions about this study, please contact Mina Rohani (PhD Candidate) at +1-514 340-6733 or [mina.rohani@hec.ca](mailto:mina.rohani@hec.ca), or Professor Yany Gregoire at 514 340-1493, or [yany.gregoire@hec.ca](mailto:yany.gregoire@hec.ca).

**Thank you for your help!**

Do you agree to participate in this research? ☐ I agree ☐ I do NOT agree

#### **PART 1: DESCRIPTION OF THE FAILURE**

Please briefly discuss the service failure that you described in your ConsumerAffairs.com review (one or two sentences).

---

---

\_\_\_\_\_  
Why did you decide to take public actions by writing a review on ConsumerAffairs.com.  
Please list all the reasons.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Did someone from the firm write a rebuttal in response to your report (Yes or No)? If so, what did you think of it? ☐ yes \_\_\_\_\_ ☐ no

Since you posted a review on ConsumerAffairs.com, was the service failure resolved to your satisfaction? ☐ yes ☐ no

Since you posted a review on consumeraffairs.com, did you give up on having the service failure resolved to your satisfaction? ☐ yes ☐ no

## **PART 2: EXPRESSIVE WRITING**

We would like you to write about your **emotions and thoughts** surrounding the service failure you experienced that led you to write a review to ConsumerAffairs.com.

In your writing, we would like you to explore your deepest **emotions** (i.e., I feel...) and **thoughts** (i.e., “I think that...”; “I believe that...”).

All of your writing will be completely confidential. Don’t worry about spelling, sentence structure, grammar, or punctuation. The only rule is that once you begin writing, you continue to do so until **10 minutes** is up.

Once you begin, please continue writing until **10 minutes** is up.

Are you ready to begin writing? ☐ yes ☐ NOT yet



Please continue writing until **10 minutes** is up.

## **PART 3: PERSONAL INFORMATION**

Please indicate your gender: ☐ Female ☐ Male

What is your age? \_\_\_\_\_

What is your mother tongue? ☐ English

☐ Others

What is your email address? \_\_\_\_\_

**Thank You Very Much For Your Help!**

### 3.11.2.3. Expressive Writing- Cognitions only -Wave3

Dear contributor to ConsumerAffairs.com,

So far, you completed two questionnaires about the service failure you experienced that led you to write a review to ConsumerAffairs.com. Thank you for your participation! Today, you are invited to participate in the third questionnaire (phase 3) that organized by HEC Montreal, in collaboration with ConsumerAffairs.com. This study asks you to write **ONLY** about your **current thoughts** surrounding the service failure you experienced that led you to write a review to ConsumerAffairs.com. By **service failure** we mean the situation in which the service firm failed to service you adequately that created you some dissatisfaction.

This questionnaire takes approximately **15 minutes** to complete. You have to complete this questionnaire by **Saturday, December 7, 2013**. The follow-up questionnaires will be emailed to you next week after completion of this questionnaire (i.e., 9 December). If you qualify and complete all four questionnaires, you will be eligible to win one of **six iPad mini** in our contest.

Before start answering the questionnaire, please recall the same service failure you experienced that led you to write a complaint to ConsumerAffairs.com. After recalling the service failure, we want you to write us **only your current thoughts** (e.g., “I think that...”; “I believe that...” ) regarding that service failure experience. It is important that you **DO NOT EXPLORE YOUR EMOTIONS** (e.g., I feel...) while you are answering the questions. Don’t worry about spelling, sentence structure, grammar, or punctuation. The only rule is that once you begin writing, you continue to do so until **10 MINUTES** is up.

This research project is **voluntary and confidential**. If you agree to participate, you are free not to answer any question you may find objectionable. However, every response is important, so please complete the entire questionnaire. The success of this project depends on your help! The results of the research will be strictly used for academic purposes and to provide information to ConsumerAffairs.com.

This study has been reviewed and approved by the HEC-Montreal “Le Comité d'éthique de la recherche (CER)”. If you have questions about this study, please contact Mina Rohani (PhD Candidate) at +1-514 340-6733 or [mina.rohani@hec.ca](mailto:mina.rohani@hec.ca), or Professor Yany Gregoire at 514 340-1493, or [yany.gregoire@hec.ca](mailto:yany.gregoire@hec.ca).

**Thank you for your help!**

Do you agree to participate in this research? ☐ I agree ☐ I do **NOT** agree

#### **PART 1: DESCRIPTION OF THE FAILUR**

Please briefly discuss the service failure that you described in your ConsumerAffairs.com review (one or two sentences).

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Why did you decide to take public actions by writing a review on ConsumerAffairs.com. Please list all the reasons.

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Did someone from the firm write a rebuttal in response to your report (Yes or No)? If so, what did you think of it? ☐ yes \_\_\_\_\_ ☐ no  
Since you posted a review on ConsumerAffairs.com, was the service failure resolved to your satisfaction? ☐ yes ☐ no

Since you posted a review on ConsumerAffairs.com, did you give up on having the service failure resolved to your satisfaction? ☐ yes ☐ no

## **PART 2: EXPRESSIVE WRITING**

We would like you to **write only about your thoughts** surrounding the service failure you experienced that led you to write a review to ConsumerAffairs.com.

In your writing, we would like you to explore your deepest thoughts. It is important that you **do not explore your emotions or feelings** (i.e., I feel that...). Please write only about what you think about the service failure (i.e., "I think that..."; "I believe that...").

All of your writing will be completely confidential. Don't worry about spelling, sentence structure, grammar, or punctuation. The only rule is that once you begin writing, you continue to do so until **10 minutes** is up.

Once you begin, please continue writing until **10 minutes** is up.  
Are you ready to begin writing? ☐ yes ☐ NOT yet



Please continue writing until **10 minutes** is up.

### **PART 3: PERSONAL INFORMATION**

Please indicate your gender: ☐ Female ☐ Male  
What is your age? \_\_\_\_\_  
What is your mother tongue? ☐ English ☐ Others  
What is your email address? \_\_\_\_\_

**Thank You Very Much For Your Help!**

### 3.11.2.4. Expressive Writing- Emotions only -Wave3

Dear contributor to ConsumerAffairs.com,

So far, you completed two questionnaires about the service failure you experienced that led you to write a review to ConsumerAffairs.com. Thank you for your participation! Today, you are invited to participate in the third questionnaire (phase 3) that organized by HEC Montreal, in collaboration with ConsumerAffairs.com. This study asks you to write **ONLY** about your **current emotions** surrounding the service failure you experienced that led you to write a review to ConsumerAffairs.com. By **service failure** we mean the situation in which the service firm failed to service you adequately that created you some dissatisfaction.

This questionnaire takes approximately **15 minutes** to complete. You have to complete this questionnaire by **Saturday, December 7, 2013**. The follow-up questionnaires will be emailed to you next week after completion of this questionnaire (i.e., 9 December). If you qualify and complete all four questionnaires, you will be eligible to win one of **six iPad mini** in our contest.

Before start answering the questionnaire, please recall the same service failure you experienced that led you to write a complaint to consumeraffairs.com. After recalling the service failure, we want you to write us your **current EMOTIONS** regarding that service failure experience. In your writing, we would like you to explore **ONLY** your deepest **emotions** (e.g., I feel...). It is important that you **DO NOT EXPLORE YOUR THOUGHTS** (e.g., “I think that...”; “I believe that...”). Don’t worry about spelling, sentence structure, grammar, or punctuation. The only rule is that once you begin writing, you continue to do so until **10 MINUTES** is up.

This research project is **voluntary and confidential**. If you agree to participate, you are free not to answer any question you may find objectionable. However, every response is important, so please complete the entire questionnaire. The success of this project depends on your help! The results of the research will be strictly used for academic purposes and to provide information to ConsumerAffairs.com.

This study has been reviewed and approved by the HEC-Montreal “Le Comité d'éthique de la recherche (CER)”. If you have questions about this study, please contact Mina Rohani (PhD Candidate) at +1-514 340-6733 or [mina.rohani@hec.ca](mailto:mina.rohani@hec.ca), or Professor Yany Gregoire at 514 340-1493, or [yany.gregoire@hec.ca](mailto:yany.gregoire@hec.ca).

**Thank you for your help!**

Do you agree to participate in this research? ☐ I agree ☐ I do **NOT** agree

#### **PART 1: DESCRIPTION OF THE FAILUR**

Please briefly discuss the service failure that you described in your ConsumerAffairs.com review (one or two sentences).

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Why did you decide to take public actions by writing a review on ConsumerAffairs.com. Please list all the reasons.

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Did someone from the firm write a rebuttal in response to your report (Yes or No)? If so, what did you think of it? ☐ yes \_\_\_\_\_ ☐ no  
Since you posted a review on ConsumerAffairs.com, was the service failure resolved to your satisfaction? ☐ yes ☐ no

Since you posted a review on ConsumerAffairs.com, did you give up on having the service failure resolved to your satisfaction? ☐ yes ☐ no

## **PART 2: EXPRESSIVE WRITING**

We would like you to **write only about your emotions** surrounding the service failure you experienced that led you to write a review to ConsumerAffairs.com. In your writing, we would like you to explore your deepest emotions. It is important that you **do not explore your thoughts** (i.e., “I think that...”; “I believe that...”).

Please write only about what you feel about the service failure (i.e., I feel that...).

All of your writing will be completely confidential. Don’t worry about spelling, sentence structure, grammar, or punctuation. The only rule is that once you begin writing, you continue to do so until **10 minutes** is up.

Once you begin, please continue writing until **10 minutes** is up.

Are you ready to begin writing? ☐ yes ☐ **NOT** yet



Please continue writing until **10 minutes** is up.



### **PART 3: PERSONAL INFORMATION**

Please indicate your gender: ☐ Female ☐ Male  
What is your age? \_\_\_\_\_  
What is your mother tongue? ☐ English ☐ Others  
What is your email address? \_\_\_\_\_

**Thank You Very Much For Your Help!**

### 3.11.2.5. Pre-formatted Surveys- Both cognitions and emotions -Wave3

Dear contributor to ConsumerAffairs.com,

So far, you completed two questionnaires about the service failure you experienced that led you to write a review to ConsumerAffairs.com. Thank you for your participation!

Today, you are invited to participate in the third questionnaire (phase 3) that organized by HEC Montreal, in collaboration with ConsumerAffairs.com. This survey is about a service failure you experienced that led you to write a review to ConsumerAffairs.com. By **service failure** we mean the situation in which the service firm failed to service you adequately that created some dissatisfaction for you.

This questionnaire takes approximately **15 minutes** to complete. You have to complete this questionnaire by **Saturday, December 7, 2013**. The follow-up questionnaires will be emailed to you next week after completion of this questionnaire (i.e., 9 December). If you qualify and complete all four questionnaires, you will be eligible to win one of **six iPad mini** in our contest.

Before start answering the questionnaire, please recall the same service failure that has happened to you. After recalling the service failure, we want you to explore your **current THOUGHTS** and **FEELINGS** regarding that service failure experience.

This research project is **voluntary and confidential**. If you agree to participate, you are free not to answer any question you may find objectionable. However, every response is important, so please complete the entire survey. The success of this project depends on your help! The results of the research will be strictly used for academic purposes and to provide information to ConsumerAffairs.com. Please answer the questions as honestly as possible.

This study has been reviewed and approved by the HEC-Montreal “Le Comité d'éthique de la recherche (CER)”. If you have questions about this study, please contact Mina Rohani (PhD Candidate) at +1-514 340-6733 or [mina.rohani@hec.ca](mailto:mina.rohani@hec.ca), or Professor Yany Gregoire at 514 340-1493, or [yany.gregoire@hec.ca](mailto:yany.gregoire@hec.ca).

**Thank you for your help!**

Do you agree to participate in this research? ☐ I agree ☐ I do NOT agree

#### **PART 1: DESCRIPTION OF THE FAILUR**

Please briefly discuss the service failure that you described in your ConsumerAffairs.com review (one or two sentences).

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Why did you decide to take public actions by writing a review on ConsumerAffairs.com. Please list all the reasons.

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Did someone from the firm write a rebuttal in response to your report (Yes or No)? If so, what did you think of it? ☐ yes \_\_\_\_\_ ☐ no

Since you posted a review on ConsumerAffairs.com, was the service failure resolved to your satisfaction? ☐ yes ☐ no

Since you posted a review on ConsumerAffairs.com, did you give up on having the service failure resolved to your satisfaction? ☐ yes ☐ no

## **PART 2: YOUR THOUGHTS AND EMOTIONS**

This part of the survey asks you questions about your **emotions and thoughts** surrounding the service failure you experienced that led you to write a review to consumeraffairs.com.

To answer them please recall the service failure that occurred to you, for which you write a review to ConsumerAffairs.com. After recalling the service failure, we want you to explore your **thoughts and feelings** regarding that service failure experience.

**BEFORE** the service failure, how many times in the last 12 months (approximately) did you interact with this service firm? \_\_\_\_\_

Please indicate your current level of agreement with the following statements.

	Strongly <b><u>Disagree</u></b>				Strongly Agree		
Despite the hassle caused by the problem, the firm responded fairly and quickly.	1	2	3	4	5	6	7
I think the firm responded in a timely fashion to the problem.	1	2	3	4	5	6	7
I believe the firm has fair policies and practices to handle problems.	1	2	3	4	5	6	7
With respect to its policies and procedures, the firm handled the problem in a fair manner.	1	2	3	4	5	6	7

I think the employee(s) who interacted with me...

	Strongly <b><u>Disagree</u></b>				Strongly Agree		
...treated me in a polite manner.	1	2	3	4	5	6	7
...gave me detailed explanations and relevant advice.	1	2	3	4	5	6	7
...treated me with courtesy and respect.	1	2	3	4	5	6	7
...treated me with empathy.	1	2	3	4	5	6	7

Referring to all outcomes you received (such as the compensation, exchange, refund, gift, or discount), please indicate your **current** level of agreement with the following statements.

	Strongly <b><u>Disagree</u></b>				Strongly Agree		
Overall, the outcomes I received from the service firm were fair.	1	2	3	4	5	6	7
Given the time, money and hassle, I got fair outcomes.	1	2	3	4	5	6	7
I got what I deserved.	1	2	3	4	5	6	7

I think the service firm is...

... not at all

... totally

responsible for the service failure 1	2	3	4	5	6	responsible for the service failure 7
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...in no way the service firm's fault 1	2	3	4	5	6	...completely the service firm's fault 7
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

To what extent do you blame the service firm for what happened?

Not at all 1	2	3	4	5	6	Completely 7
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The service firm...

... had good intentions 1	2	3	4	5	6	... had bad intentions 7
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...did not intend to take advantage of me 1	2	3	4	5	6	... intended to take advantage of me 7
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...did not try to abuse me 1	2	3	4	5	6	...tried to abuse me 7
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...was primarily motivated by my interest 1	2	3	4	5	6	...was primarily motivated by its own interest 7
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please indicate your **current** level of agreement with the following statements.

According to my all my experiences with the service firm, I think this service firm...

	Strongly <b>Disagree</b>				Strongly Agree		
...anticipates my needs.	1	2	3	4	5	6	7
...is very attentive.	1	2	3	4	5	6	7
...is very available when needed.	1	2	3	4	5	6	7
...checks back on me to see how I am doing.	1	2	3	4	5	6	7
...Does <b>NOT</b> provide complete service.	1	2	3	4	5	6	7
...quickly attends to me.	1	2	3	4	5	6	7
...responds to my needs quickly.	1	2	3	4	5	6	7
...quickly serves me.	1	2	3	4	5	6	7
...the timing of the services is oriented to my needs.	1	2	3	4	5	6	7

Reflecting on your service failure experience with the service firm, please respond to the following statements.

**Currently**, I think that the problem I have encountered is...

...much less serious than expected	...pretty much as expected				...much more serious than expected	
1	2	3	4	5	6	7
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Compare to what I expected from the service firm, the problem I had is...

...much worse than expected					...much better than expected	
1	2	3	4	5	6	7
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Overall, I think the service firm is...

...much worse than expected					...much better than expected	
1	2	3	4	5	6	7
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Currently**, I feel that the service firm is...

...very undependable					...very dependable	
1	2	3	4	5	6	7
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...very incompetent	neither				...very competent	
1	2	3	4	5	6	7
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

...of low integrity				neither			... of high integrity
1	2	3	4	5	6	7	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
...very unresponsive			neither			...very responsive	
1	2	3	4	5	6	7	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

**Currently**, I feel ...

					Strongly <b><u>Disagree</u></b>					Strongly Agree
...I am very committed to my relationship with the service firm.	1	2	3	4	5	6	7			
...this relationship is something I intend to maintain for a long time.	1	2	3	4	5	6	7			
...I put efforts into maintaining this relationship.	1	2	3	4	5	6	7			
...betrayed by the service firm.	1	2	3	4	5	6	7			
...cheated by the service firm.	1	2	3	4	5	6	7			
...the service firm broke the promise made to me.	1	2	3	4	5	6	7			
...my confidence in the service firm is violated.	1	2	3	4	5	6	7			
...the service firm let me down in a moment of need.	1	2	3	4	5	6	7			
..."stabbed in the back" by the service firm.	1	2	3	4	5	6	7			

Reflecting on my service failure experience with the service firm, **at the current moment** I feel...

					Strongly <b><u>Disagree</u></b>					Strongly Agree
...mad	1	2	3	4	5	6	7			
...furious	1	2	3	4	5	6	7			
...outraged	1	2	3	4	5	6	7			
...resentful	1	2	3	4	5	6	7			
...angry	1	2	3	4	5	6	7			
...dissatisfied	1	2	3	4	5	6	7			
...discontented	1	2	3	4	5	6	7			
...displeased	1	2	3	4	5	6	7			
...disappointed	1	2	3	4	5	6	7			
...frustrated	1	2	3	4	5	6	7			
...regret	1	2	3	4	5	6	7			
...depressed	1	2	3	4	5	6	7			
...sad	1	2	3	4	5	6	7			
...distress	1	2	3	4	5	6	7			
...embarrassed	1	2	3	4	5	6	7			

...ashamed	1	2	3	4	5	6	7
...humiliated	1	2	3	4	5	6	7
...helpless	1	2	3	4	5	6	7
...powerless	1	2	3	4	5	6	7
...rage	1	2	3	4	5	6	7
...wrath	1	2	3	4	5	6	7
...ferocity	1	2	3	4	5	6	7
...malice	1	2	3	4	5	6	7
...resentment	1	2	3	4	5	6	7
...scorn	1	2	3	4	5	6	7
...hate	1	2	3	4	5	6	7
...vengefulness	1	2	3	4	5	6	7

Please indicate your level of agreement with the following statements.

Reflecting on my service failure experience with the service firm, **currently** I feel...

	Strongly <u>Disagree</u>				Strongly Agree			
...excluded by the service firm.	1	2	3	4	5	6	7	
...ignored by the service firm.	1	2	3	4	5	6	7	
...rejected by the service firm.	1	2	3	4	5	6	7	
...like the service firm did not value our relationship.	1	2	3	4	5	6	7	

Reflecting on my service failure experience with the service firm, **currently** I ...

	Strongly <u>Disagree</u>					Strongly Agree		
...have a desire to reconnect with the service firm.	1	2	3	4	5	6	7	
...feel a longing to re-establish the relationship with the service firm.	1	2	3	4	5	6	7	
...feel that the relationship with the service firm is valuable.	1	2	3	4	5	6	7	
...feel confident that I will re-establish the relationship with the service firm.	1	2	3	4	5	6	7	

Reflecting on my service failure experience with the service firm, **at the current moment** I want to...

	Strongly <u>Disagree</u>				Strongly Agree			
...take actions to get the service firm in trouble.	1	2	3	4	5	6	7	
...punish the service firm in some way.	1	2	3	4	5	6	7	
...cause inconvenience to the service firm.	1	2	3	4	5	6	7	
...get even with the service firm.	1	2	3	4	5	6	7	
...make the service firm get what it deserved.	1	2	3	4	5	6	7	
...keep as much distance as possible between the service firm and me.	1	2	3	4	5	6	7	
...live as the service firm doesn't exist, isn't around.	1	2	3	4	5	6	7	

...avoid frequenting the service firm.	1	2	3	4	5	6	7
...cut off the relationship with the service firm.	1	2	3	4	5	6	7
...withdraw my business from the service firm.	1	2	3	4	5	6	7
...give the firm back a new start, a renewed relationship.	1	2	3	4	5	6	7
...accept the humanness, flaws, and failures of the firm.	1	2	3	4	5	6	7
...try to make amends toward the firm.	1	2	3	4	5	6	7
...accept the firm despite what happened.	1	2	3	4	5	6	7
...try to make an effort to be more friendly and concerned toward the firm.	1	2	3	4	5	6	7

### **PART 3: PERSONAL INFORMATION**

Please indicate your gender: ☐ Female ☐ Male  
 What is your age? \_\_\_\_\_  
 What is your mother tongue? ☐ English ☐ Others  
 What is your email address? \_\_\_\_\_

**Thank You Very Much For Your Help!**



### 3.11.2.6. Pre-formatted Surveys- Cognitions only -Wave3

Dear contributor to ConsumerAffairs.com,

So far, you completed two questionnaires about the service failure you experienced that led you to write a review to ConsumerAffairs.com. Thank you for your participation!

Today, you are invited to participate in the third questionnaire (phase 3) that organized by HEC Montreal, in collaboration with ConsumerAffairs.com. This survey is about a service failure you experienced that led you to write a review to ConsumerAffairs.com. By **service failure** we mean the situation in which the service firm failed to service you adequately that created some dissatisfaction for you.

This questionnaire takes approximately **15 minutes** to complete. You have to complete this questionnaire by **Saturday, December 7, 2013**. The follow-up questionnaires will be emailed to you next week after completion of this questionnaire (i.e., 9 December). If you qualify and complete all four questionnaires, you will be eligible to win one of **six iPad mini** in our contest.

Before start answering the questionnaire, please recall the same service failure that has happened to you and answer the questions according to that service experience during the entire study. After recalling the service failure, we want you to explore **only** your **current thoughts** about this event. It is important that you **DO NOT EXPLORE YOUR EMOTIONS AND FEELINGS** while you are answering the questions.

This research project is **voluntary and confidential**. If you agree to participate, you are free not to answer any question you may find objectionable. However, every response is important, so please complete the entire survey. The success of this project depends on your help! The results of the research will be strictly used for academic purposes and to provide information to ConsumerAffairs.com. Please answer the questions as honestly as possible.

This study has been reviewed and approved by the HEC-Montreal “Le Comité d'éthique de la recherche (CER)”. If you have questions about this study, please contact Mina Rohani (PhD Candidate) at +1-514 340-6733 or [mina.rohani@hec.ca](mailto:mina.rohani@hec.ca), or Professor Yany Gregoire at 514 340-1493, or [yany.gregoire@hec.ca](mailto:yany.gregoire@hec.ca).

**Thank you for your help!**

Do you agree to participate in this research? ☐ I agree ☐ I do NOT agree

#### **PART 1: DESCRIPTION OF THE FAILURE**

Please briefly discuss the service failure that you described in your ConsumerAffairs.com review (one or two sentences).

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Why did you decide to take public actions by writing a review on ConsumerAffairs.com? Please list all the reasons.

Did someone from the firm write a rebuttal in response to your report (Yes or No)? If so, what did you think of it? ☐ yes \_\_\_\_\_ ☐ no

Since you posted a review on ConsumerAffairs.com, was the service failure resolved to your satisfaction? ☐ yes ☐ no

Since you posted a review on ConsumerAffairs.com, did you give up on having the service failure resolved to your satisfaction? ☐ yes ☐ no

## **PART 2: YOUR THOUGHTS**

This part of the survey asks you questions about your **thoughts** surrounding the service failure you experienced that led you to write a review to ConsumerAffairs.com. To answer them please recall the same service failure. After recalling the service failure, we want you to explore **only your thoughts** about this event.

It is important that you **DO NOT EXPLORE YOUR EMOTIONS** while you are answering the questions.

**BEFORE** the service failure, how many times in the last 12 months (approximately) did you interact with this service firm? \_\_\_\_\_

Please indicate your current level of agreement with the following statements.

	Strongly <b><u>Disagree</u></b>				Strongly Agree		
Despite the hassle caused by the problem, the firm responded fairly and quickly.	1	2	3	4	5	6	7
I think the firm responded in a timely fashion to the problem.	1	2	3	4	5	6	7
I believe the firm has fair policies and practices to handle problems.	1	2	3	4	5	6	7
With respect to its policies and procedures, the firm handled the problem in a fair manner.	1	2	3	4	5	6	7
I was not given an opportunity to tell my side of the story to the service firm.							
I had no say in the outcomes I received from the service firm.							
It is hard to figure out who to complain in the service firm.							
The service firm is willing to adapt its complaint handling procedures to satisfy my needs.							
I think the employee(s) who interacted with me...							
	Strongly <b><u>Disagree</u></b>				Strongly Agree		
...treated me in a polite manner.	1	2	3	4	5	6	7
...gave me detailed explanations and relevant advice.	1	2	3	4	5	6	7
...treated me with courtesy and respect.	1	2	3	4	5	6	7

...treated me with empathy.	1	2	3	4	5	6	7
...treated me rudely.	1	2	3	4	5	6	7
...listen politely to what I had to say.	1	2	3	4	5	6	7
...did not tell me the truth.	1	2	3	4	5	6	7
...was very concerned about my problem.	1	2	3	4	5	6	7
...put a lot of positive energy into handling my problem.	1	2	3	4	5	6	7

Referring to all outcomes you received (such as the compensation, exchange, refund, gift, or discount), please indicate your **current** level of agreement with the following statements.

	Strongly <b>Disagree</b>			Strongly Agree			
Overall, the outcomes I received from the service firm were fair.	1	2	3	4	5	6	7
Given the time, money and hassle, I got fair outcomes.	1	2	3	4	5	6	7
I got what I deserved.	1	2	3	4	5	6	7
Given the circumstances, I think that the service firm offered me adequate compensation.							

I think the service firm is...

... not at all responsible for the service failure	2	3	4	5	6	7
1						
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...in no way the service firm's fault	2	3	4	5	6	7
1						
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						... totally responsible for the service failure
						7
						<input type="checkbox"/>
						...completely the service firm's fault
						7
						<input type="checkbox"/>

To what extent do you blame the service firm for what happened?

Not at all	2	3	4	5	6	7
1						
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The service firm...						Completely
... had good intentions	2	3	4	5	6	7
1						
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						... had bad intentions
						7

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...did not intend to take advantage of me							... intended to take advantage of me
1	2	3	4	5	6		7
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...did not try to abuse me							...tried to abuse me
1	2	3	4	5	6		7
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...was primarily motivated by my interest							...was primarily motivated by its own interest
1	2	3	4	5	6		7
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

To what extent do you think the service firm had it out for you...

...to a very little extent							...to a very large extent
1	2	3	4	5	6		7
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

To what extent do you think the service firm did not care about you...

...to a very little extent							...to a very large extent
1	2	3	4	5	6		7
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

To what extent do you think the service firm was trying to attack you...

...to a very little extent							...to a very large extent
1	2	3	4	5	6		7
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Think about the reason or reasons of the service failure you have received from the service firm. The items below concern your impressions or opinions of this cause or causes of your outcome. Circle one number for each of the following scales.

The cause (s) of the service failure is something that...

...reflects an aspect of							...reflects an aspect of the
-----------------------------	--	--	--	--	--	--	---------------------------------

myself						situation
1	2	3	4	5	6	7
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The cause (s) of the service failure is...

...controllable by myself						...uncontrollable by myself
1	2	3	4	5	6	7
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

...permanent						...temporary
1	2	3	4	5	6	7
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

...intended by myself						...unintended by myself
1	2	3	4	5	6	7
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

...outside of me						...inside of me
1	2	3	4	5	6	7
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

...variable over time						...stable over time
1	2	3	4	5	6	7
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

...something about me						...something about others
1	2	3	4	5	6	7
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

...changeable						...unchangeable
1	2	3	4	5	6	7
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The cause (s) of the service failure is something for which...

...no one is responsible						...someone is responsible
1	2	3	4	5	6	7
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please indicate your **current** level of agreement with the following statements.  
According to my all my experiences with the service firm, I think the service firm...

	Strongly <b>Disagree</b>				Strongly Agree		
...anticipates my needs.	1	2	3	4	5	6	7
...is very attentive.	1	2	3	4	5	6	7
...is very available when needed.	1	2	3	4	5	6	7
...checks back on me to see how I am doing.	1	2	3	4	5	6	7
...Does <b>NOT</b> provide complete service.	1	2	3	4	5	6	7
...quickly attends to me.	1	2	3	4	5	6	7
...responds to my needs quickly.	1	2	3	4	5	6	7
...quickly serves me.	1	2	3	4	5	6	7
...the timing of the services is oriented to my needs.	1	2	3	4	5	6	7

Reflecting on your service failure experience with the service firm, please respond to the following statements.

**Currently**, I think that the problem I have encountered is...

...much less serious than expected	...pretty much as expected				...much more serious than expected
1	2	3	4	5	6
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Compare to what I expected from the service firm, the problem I had is...

...much worse than expected					...much better than expected
1	2	3	4	5	6
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Overall, I think the service firm is...

...much worse than expected					...much better than expected
1	2	3	4	5	6
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### **PART 3: PERSONAL INFORMATION**

Please indicate your gender: ☐ Female ☐ Male  
What is your age? \_\_\_\_\_  
What is your mother tongue? ☐ English ☐ Others  
What is your email address? \_\_\_\_\_

**Thank You Very Much For Your Help!**

### 3.11.2.7. Pre-formatted Surveys- Emotions only -Wave3

Dear contributor to ConsumerAffairs.com,

So far, you completed two questionnaires about the service failure you experienced that led you to write a review to ConsumerAffairs.com. Thank you for your participation!

Today, you are invited to participate in the third questionnaire (phase 3) that organized by HEC Montreal, in collaboration with ConsumerAffairs.com. This survey is about a service failure you experienced that led you to write a review to ConsumerAffairs.com. By **service failure** we mean the situation in which the service firm failed to service you adequately that created some dissatisfaction for you.

This questionnaire takes approximately **15 minutes** to complete. You have to complete this questionnaire by **Saturday, December 7, 2013**. The follow-up questionnaires will be emailed to you next week after completion of this questionnaire (i.e., 9 December). If you qualify and complete all four questionnaires, you will be eligible to win one of **six iPad mini** in our contest.

Before start answering the questionnaire, please recall the same service failure that has happened to you and answer the questions according to that service experience during the entire study. After recalling the service failure, we want you to explore **ONLY** your **current EMOTIONS** about this event. It is important that you **DO NOT EXPLORE YOUR THOUGHTS** while you are answering the questions.

This research project is **voluntary and confidential**. If you agree to participate, you are free not to answer any question you may find objectionable. However, every response is important, so please complete the entire survey. The success of this project depends on your help! The results of the research will be strictly used for academic purposes and to provide information to ConsumerAffairs.com. Please answer the questions as honestly as possible.

This study has been reviewed and approved by the HEC-Montreal “Le Comité d'éthique de la recherche (CER)”. If you have questions about this study, please contact Mina Rohani (PhD Candidate) at +1-514 340-6733 or [mina.rohani@hec.ca](mailto:mina.rohani@hec.ca), or Professor Yany Gregoire at 514 340-1493, or [yany.gregoire@hec.ca](mailto:yany.gregoire@hec.ca).

**Thank you for your help!**

Do you agree to participate in this research? ☐ I agree ☐ I do NOT agree

#### **PART 1: DESCRIPTION OF THE FAILURE**

Please briefly discuss the service failure that you described in your ConsumerAffairs.com review (one or two sentences).

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Why did you decide to take public actions by writing a review on ConsumerAffairs.com. Please list all the reasons.

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Did someone from the firm write a rebuttal in response to your report (Yes or No)? If so, what did you think of it? ☐ yes \_\_\_\_\_ ☐ no

Since you posted a review on ConsumerAffairs.com, was the service failure resolved to your satisfaction? ☐ yes ☐ no

Since you posted a review on ConsumerAffairs.com, did you give up on having the service failure resolved to your satisfaction? ☐ yes ☐ no

## **PART 2: YOUR EMOTIONS**

This part of the survey asks you questions about your **emotions** surrounding the service failure you experienced that led you to write a review to ConsumerAffairs.com. To answer them please recall the same service failure. After recalling the service failure, we want you to explore **only your deepest emotions** about this event at the current moment..

It is important that you **DO NOT EXPLORE YOUR THOUGHTS** while you are answering the questions.

Reflecting on your service failure experience, please respond to the following statements.

**Currently**, I feel that the service firm is...

...very undependable	1	2	3	4	5	6	7 ...very dependable
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...very incompetent	1	2	3	neither 4	5	6	7 ...very competent
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...of low integrity	1	2	3	neither 4	5	6	7 ... of high integrity
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...very unresponsive	1	2	3	neither 4	5	6	7 ...very responsive
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Currently**, I feel ...



	Strongly <b>Disagree</b>				Strongly Agree		
...I am very committed to my relationship with the service firm.	1	2	3	4	5	6	7
...this relationship is something I intend to maintain for a long time.	1	2	3	4	5	6	7
...I put efforts into maintaining this relationship.	1	2	3	4	5	6	7
...betrayed by the service firm.	1	2	3	4	5	6	7
...cheated by the service firm.	1	2	3	4	5	6	7
...the service firm broke the promise made to me.	1	2	3	4	5	6	7
...my confidence in the service firm is violated.	1	2	3	4	5	6	7
...the service firm let me down in a moment of need.	1	2	3	4	5	6	7
..."stabbed in the back" by the service firm.	1	2	3	4	5	6	7
...lied to.	1	2	3	4	5	6	7

Reflecting on my service failure experience with the service firm, **at the current moment** I feel...

	Strongly <b>Disagree</b>				Strongly Agree		
...mad	1	2	3	4	5	6	7
...furious	1	2	3	4	5	6	7
...outraged	1	2	3	4	5	6	7
...resentful	1	2	3	4	5	6	7
...angry	1	2	3	4	5	6	7
...dissatisfied	1	2	3	4	5	6	7
...discontented	1	2	3	4	5	6	7
...displeased	1	2	3	4	5	6	7
...disappointed	1	2	3	4	5	6	7
...frustrated	1	2	3	4	5	6	7
...regret	1	2	3	4	5	6	7
...depressed	1	2	3	4	5	6	7
...sad	1	2	3	4	5	6	7
...distress	1	2	3	4	5	6	7
...embarrassed	1	2	3	4	5	6	7
...ashamed	1	2	3	4	5	6	7
...humiliated	1	2	3	4	5	6	7
...helpless	1	2	3	4	5	6	7
...powerless	1	2	3	4	5	6	7
...rage	1	2	3	4	5	6	7
...wrath	1	2	3	4	5	6	7
...ferocity	1	2	3	4	5	6	7
...malice	1	2	3	4	5	6	7
...resentment	1	2	3	4	5	6	7

...scorn	1	2	3	4	5	6	7
...hate	1	2	3	4	5	6	7
...vengefulness	1	2	3	4	5	6	7
...indignant	1	2	3	4	5	6	7
...irritate	1	2	3	4	5	6	7
...annoyed	1	2	3	4	5	6	7
...unfulfilled	1	2	3	4	5	6	7
...miserable	1	2	3	4	5	6	7
...unsecured	1	2	3	4	5	6	7
...insulted	1	2	3	4	5	6	7
...hostility	1	2	3	4	5	6	7
...bitterness	1	2	3	4	5	6	7
...loathing	1	2	3	4	5	6	7
...spite	1	2	3	4	5	6	7
...dislike	1	2	3	4	5	6	7
...contempt	1	2	3	4	5	6	7
...gloomy	1	2	3	4	5	6	7
...sorrow	1	2	3	4	5	6	7
...dejected	1	2	3	4	5	6	7
...disgust	1	2	3	4	5	6	7

Please indicate your **current** level of agreement with the following statements.

Reflecting on my service failure experience, **currently** I feel...

	Strongly <b>Disagree</b>				Strongly Agree		
...excluded by the service firm.	1	2	3	4	5	6	7
...ignored by the service firm.	1	2	3	4	5	6	7
...rejected by the service firm.	1	2	3	4	5	6	7
...like the service firm did not value our relationship.	1	2	3	4	5	6	7
...that the service firm wanted to maintain a relationship with me.	1	2	3	4	5	6	7
...isolated by the service firm.	1	2	3	4	5	6	7
...that the service firm did not consider me a valued customer.	1	2	3	4	5	6	7

Reflecting on my service failure experience with the service firm, **at the current moment** I...

	Strongly <b>Disagree</b>				Strongly Agree		
...have a desire to reconnect with the service firm.	1	2	3	4	5	6	7
...feel a longing to re-establish the relationship with the service firm.	1	2	3	4	5	6	7
...feel that the relationship with the service firm is valuable.	1	2	3	4	5	6	7
...feel confident that I will re-establish the relationship with the service firm.	1	2	3	4	5	6	7
...wish the service firm would have given me a chance to re-establish the relationship.	1	2	3	4	5	6	7

...feel that a deficiency existed because I no longer have a relationship with the service firm. 1 2 3 4 5 6 7

...feel that it is important that I have a relationship with the service firm. 1 2 3 4 5 6 7

...feel deprived because my relationship with the service firm ended. 1 2 3 4 5 6 7

**Currently**, how accurately do the following words describe your feelings for the service firm?

	Clearly does not describe my feelings				Clearly describes my feelings			
Friendly.	1	2	3	4	5	6	7	
Connected.	1	2	3	4	5	6	7	
Bonded.	1	2	3	4	5	6	7	
Attached.	1	2	3	4	5	6	7	

Reflecting on my service failure experience with the service firm, **at the current moment** I want to...

	Strongly <b>Disagree</b>				Strongly Agree			
...take actions to get the service firm in trouble.	1	2	3	4	5	6	7	
...punish the service firm in some way.	1	2	3	4	5	6	7	
...cause inconvenience to the service firm.	1	2	3	4	5	6	7	
...get even with the service firm.	1	2	3	4	5	6	7	
...make the service firm get what it deserved.	1	2	3	4	5	6	7	
...keep as much distance as possible between the service firm and me.	1	2	3	4	5	6	7	
...live as the service firm doesn't exist, isn't around.	1	2	3	4	5	6	7	
...avoid frequenting the service firm.	1	2	3	4	5	6	7	
...cut off the relationship with the service firm.	1	2	3	4	5	6	7	
...withdraw my business from the service firm.	1	2	3	4	5	6	7	
...give the firm back a new start, a renewed relationship.	1	2	3	4	5	6	7	
...accept the humanness, flaws, and failures of the firm.	1	2	3	4	5	6	7	
...try to make amends toward the firm.	1	2	3	4	5	6	7	
...accept the firm despite what happened.	1	2	3	4	5	6	7	
...try to make an effort to be more friendly and concerned toward the firm.	1	2	3	4	5	6	7	
...receive an apology.	1	2	3	4	5	6	7	
...have the firm assume responsibility for its actions.	1	2	3	4	5	6	7	
...receive a form of reparation for the failure.	1	2	3	4	5	6	7	
...have the service firm fix its mistakes.	1	2	3	4	5	6	7	

### **PART 3: PERSONAL INFORMATION**

Please indicate your gender: ☐ Female ☐ Male  
What is your age? \_\_\_\_\_  
What is your mother tongue? ☐ English ☐ Others  
What is your email address? \_\_\_\_\_

**Thank You Very Much For Your Help!**

## Chapter IV - Conclusion

The objective of this dissertation was to conceptualize the effects of mere-measurement and time on customers' revenge and reconciliation responses following a double deviation situation. More specifically, this dissertation studied the effects of answering various forms and contents of questionnaires on the customer revenge and reconciliation responses over time. To do so, two longitudinal field experiments were conducted. The first essay proposed that the reducing effect of time on revenge responses — a “time heals all wounds” effect — is contingent on the number of completed surveys, and on the cognitive vs. emotional nature of the responses. The second essay was conducted to create a broad picture of the optimal form and content of questionnaire over time in reducing revenge and promoting reconciliation. The results suggests that first, the “pre-formatted surveys about both cognitions and emotions” is the optimal questionnaire in reducing customers revenge responses and promoting desire for reconciliation. Second, the expressive writings counterintuitively amplify customer revenge responses and reduce desire for reconciliation.

This dissertation has notable contributions. The first essay provides a strong evidence that a series of surveys over time can serve as a venting mechanism. The respondents who completed four surveys over time reported a lower level of perceived betrayal, desire for revenge, vindictive behavior and negative word of mouth, compared to those who answered one survey at the end of the two-month period. Moreover, the results of first essay confirmed that the shape and intensity of the catharsis effects depend on the cognitive vs. emotional nature of revenge responses. The catharsis effect is more pronounced for emotions compared to cognitions. The results of the first essay offer sending a series of surveys to aggrieved customers as a practical solution for managers to confront threats of online customer revenge. This solution is recommended for three reasons. First, it is important to provide such an opportunity for aggrieved customers because a desire for revenge is unlikely to dissipate by itself. Second, this solution provides

benefits for both customers and firms by contributing to their psychological well-being and reputation, respectively. Third, this solution is effective, inexpensive, and easy to implement.

The second essay extends the findings of the first essay by examining the effects of various forms and contents of questionnaires on customer revenge and reconciliation. It proposed that the “pre-formatted surveys about both cognitions and emotions” condition is the optimal condition in reducing customers’ revenge responses and promoting desire for reconciliation. In other words, those who answered pre-formatted surveys that concerned both their thoughts and feelings reported lower level of betrayal, anger, and desire for avoidance, compared to those who answered questionnaires that concerned only their thoughts or emotions. Moreover, answering “pre-formatted surveys about both cognitions and emotions” promote customers’ desire for reconciliation. In addition, the results show that expressive writings counterintuitively amplify customers’ revenge responses and reduce desire for reconciliation.

In conclusion, the results of the second essay recommend managers to send “pre-formatted surveys” that concern both cognitions and emotions to aggrieved customers. This solution is recommended for three reasons. First, it involves customers as an organizational resource to actively control their revenge on their own. Second, this solution has a catharsis effect on customer revenge responses as well as promoting desire for reconciliation. Third, it is imperative for managers to choose a proper form and content for the questionnaire because it may have counterintuitive effects on a customer revenge responses. Notably, expressive writings not only reduce but also amplify customer revenge responses.

