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## Vacation Recovery Experiences on Life Satisfaction

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### ABSTRACT

*This research examined the role of vacations as a stress reliever, particularly focusing on the underlying psychological experiences associated with recovery. Building on the Effect-Recovery Theory, the Conservation of Resources Theory, and research on mood regulation, this research investigated the effects of vacation recovery experiences on overall life satisfaction, and further tested whether the proposed effects are moderated by vacation length. The study results indicated that life satisfaction after vacation is positively influenced by perceived control, psychological detachment from work, relaxation experience, and mastery experience during vacation. The results also revealed that longer vacations might provide more opportunities for detachment and mastery experiences. It is thus concluded that taking a vacation (even a weekend getaway) can help individuals to recover from stressful work, while individuals can benefit more from longer vacations.*

**Keywords:** vacation, recovery experience, benefits of tourism, life satisfaction, trip satisfaction.

### INTRODUCTION

This research intended to examine the effects of vacation on life satisfaction, particularly focusing on the underlying psychological experiences associated with recovery. With one of the most important motivational forces for tourism experiences being to escape from routine and stressful environments (Mannell and Iso-Ahola, 1987), it is postulated that taking vacations can help individuals to recover from work stress and increase their life satisfaction (de Bloom, Kompier, Geurts, Weerth, Taris, and Sonnentag, 2009). However, previous tourism studies have paid more attention to satisfaction and purchase intentions of a particular tourism service (Li and Petrick, 2008; Ritchie, 1996), while it remains relatively unexplored in the tourism literature how tourism experiences affect individuals' overall psychological well-being (Neal, Sirgy, and Uysal, 1999; Sirgy, Kruger, Lee, and Yu, 2011).

The current inquiry is based on the Effort-Recovery Theory (Meijman and Mulder, 1998), the Conservation of Resources Theory (Hobfoll, 1998), and mood regulation literature (Pakinson and Totterdell, 1999). According to the Effort-Recovery Theory (Meijman and Mulder, 1998), individuals who face stressful work environments often have load reactions, such as fatigue or physiological activation, while once they are no longer exposed to the work demands, load reactions are supposed to be reversed. On the other hand, Hobfoll (1998) postulated that individuals strive to obtain and retain their external resources (such as financial assets) as well as internal sources (such as personal energies and positive mood). Since stress leads to the depletion of internal resources, individuals should gain more internal resources in order to recover from stress (Hobfoll, 1998).

In a similar vein, research on mood regulation literature offers an insight into the processes of recovery (Parksin, Totterdell, Briner, and Reynolds, 1996; Thayer, Newman, and

McClain, 1994). In particular, Parkinson and Totterdell (1999) have identified three diversionary strategies for individuals with impaired mood, including psychological detachment, relaxation experience, and mastery experience. As suggested by the Effort-Recovery Theory, relaxation and detachment strategies should be useful for recovery because individuals should perceive detachment and relaxation experiences as an escape from work stress. Furthermore, the relevance of mastery strategies in the context of work stress and recovery is arguably supported by the Conservation of Resources Theory in that mastery experiences should support individual to gain more internal resources (Sonnentag and Fritz, 2007). Sonnentag and Fritz (2007) also argued that perceived control should also be a factor of recovery experience in that control can provide the opportunity for individuals to gain internal resources. Based on the above literature, it was hypothesized that life satisfaction after vacation should be positively influenced by psychological detachment, relaxation experience, mastery experience, and perceived control during vacation.

Thus, the main purpose of this research was to assess the relative importance of four recovery-experience factors (psychological detachment, relaxation experience, mastery experience, and control as developed by Sonnentag and Fritz, 2007) in predicting life satisfaction after vacation. The second purpose of the research was to examine the moderating effect of vacation length by comparing the relative importance of recovery-experience factors in predicting life satisfaction under three conditions including: short trips (less than two days), short vacations (three-seven days), and long vacations (eight days or more).

## **METHODS**

The main variables in this research included recovery experience, trip satisfaction, and life satisfaction. For measuring respondents' recovery experiences during the most recent vacation, a total of 15 items from the Recovery Experience Questionnaire (Sonnentag and Fritz, 2007) were used. Respondents' perceived life satisfaction after their most recent vacation was measured with a five-item Satisfaction-With-Life Scale (Diener, Emmons, and Larson, 1985). Moreover, a four-item overall satisfaction scale as developed by Spreng, Mackenzie, and Olshavsky (1996) was used to assess the construct of trip satisfaction. Respondents were also asked to evaluate the mental and physical strain of their daily work and the duration of their most recent vacation.

The target population of the survey was defined as the U. S. population. An online panel survey was implemented to obtain a national representative sample. The sample was randomly selected from a list of qualified online panelists from a survey company's database. A total of 1139 respondents had completed the questionnaire; however, since 313 respondents did not have a full-time job at the time of data collection, their responses were not included in the data analysis.

Analysis of the study's data included four steps. In the first step, in order to avoid the potential problem of multi-collinearity in the following steps of data analysis, a principal component analysis with varimax rotation was conducted on the trip satisfaction, recovery experience, and life satisfaction items. As suggested by Hair, Anderson, Tatham, and Black (1998), the latent root criterion of 1.0 was used for factor extraction, and factors loadings of .50 and communalities of .50 were used for item inclusion. In the second step, a base line regression model (including all respondents) with life satisfaction as the dependent variable and four recovery-experience factors as the independent variables was built. Subsequently, all respondents were categorized into three groups depending on the duration of their last vacation, including the short-trip (1-2 days), short-vacation (3-7 days), and long-vacation groups (8 days or more). The next step involved building three separate regression models for three different groups. In the final step, the regression weights of four independent variables in each model were further compared.

## FINDINGS

As shown in Table 1, the principal component analysis of the trip satisfaction scale produced a single factor, which included all four items measuring the construct and explained nearly 90% of the variance. The Cronbach's alpha of the scale ( $\alpha=.950$ ) also indicated high internal consistency. The principal component analysis of the vacation recovery experience scale produced four factors (see Table 2), including control (with four items that explained 46.8% of the variance), psychological detachment (with four items that explained 15.8% of the variance), mastery (with four items that explained 11.1% of the variance), and relaxation (with three items that explained 7.3% of the variance). The Cronbach's alphas for each factor (control:  $\alpha=.906$ ; relaxation:  $\alpha=.926$ ; mastery:  $\alpha=.890$ ; detachment:  $\alpha=.926$ ) and the entire scale ( $\alpha=.913$ ) indicated high internal consistency. It is worth noting that no item measuring recovery experience was deleted and all items were loaded on the appropriate factor. As shown in Table 3, the principal component analysis of the life satisfaction scale produced a single factor, which included all five items measuring the construct and explained nearly 76.7% of the variance. The Cronbach's alpha of the scale ( $\alpha=.920$ ) also revealed high internal consistency.

**Table 1**  
**The results of principal component analysis on trip satisfaction**

Factor/ items	Factor loadings	Communalities
Factor I: Trip satisfaction		
Satisfied – Dissatisfied	<b>.913</b>	.834
Pleased – Displeased	<b>.949</b>	.901
Contented – Frustrated	<b>.930</b>	.864
Delighted – Terrible	<b>.937</b>	.879
% Variance Explained: 86.967		
Kaiser-Meyer-Olkin Measure of Sampling (KMO): .815		
Bartlett's Test of Sphericity: 3526.526		
Significance < .001		

In the second step, a multiple regression model with life satisfaction as the dependent variable and four recovery-experience factors as the independent variables was built. Since previous studies have suggested that life satisfaction after vacation might also be influenced by trip satisfaction (Neal et al., 1999; Sirgy et al., 2011) and mental and physical strain of daily work (Fritz and Sonnentag, 2006; Strauss-Blasche et al., 2005), these three control variables were also included in the regression model. Following the suggestion of Hair et al. (1998), the residual of each case was estimated, while the cases having residuals outside three standard deviations were considered as outliers. After a total of 13 outliers were deleted, the assumption of independence of errors and the potential problem of multi-collinearity were further examined. The results indicated that the assumption of independence of errors was not violated in that the Durbin-Watson statistic was 1.97 (as suggested by Hair et al., the acceptance range is from 1.50 to 2.50), and the problem of multi-collinearity was also absent in that the tolerance values for all independent variables were larger than .7 (as suggested by Hair et al., when the tolerance value is higher than .3, the problem of multi-collinearity can be considered as absent).

As shown in Table 4, all three control variables had significant effects on life satisfaction (trip satisfaction: standardized  $\beta=.239$ ,  $p<.001$ ; mental strain of daily work: standardized  $\beta=$  -

.120,  $p < .001$ ; physical strain of daily work: standardized  $\beta = .094$ ,  $p < .01$ ). The effects of the four recovery-experience factors on life satisfaction were also all significant (control: standardized  $\beta = .193$ ,  $p < .001$ ; psychological detachment: standardized  $\beta = .231$ ,  $p < .001$ ; mastery: standardized  $\beta = .248$ ,  $p < .001$ ; relaxation: standardized  $\beta = .190$ ,  $p < .001$ ). These independent and control variables had a moderate strength of association with the dependent variable ( $R = .60$ ,  $R^2 = .37$ ).

**Table 2**  
**The results of principal component analysis on recovery experience**

Factor/ items	Factor loadings	Communalities
Factor I : Control		
I decided my own schedule.	<b>.889</b>	.880
I determined for myself how I would spend my time.	<b>.881</b>	.885
I took care of things the way that I wanted them done.	<b>.786</b>	.767
I felt like I could decide for myself what to do.	<b>.771</b>	.770
Factor II : Psychological detachment		
I didn't think about work at all.	<b>.877</b>	.813
I forgot about work.	<b>.874</b>	.838
I distanced myself from the demands of work.	<b>.865</b>	.840
I got a break from the demands of work.	<b>.715</b>	.716
Factor III : Mastery		
I did things that challenged me.	<b>.885</b>	.802
I did things to broaden my horizons.	<b>.866</b>	.798
I sought out intellectual challenges.	<b>.862</b>	.764
I learned new things.	<b>.761</b>	.700
Factor IV : Relaxation		
I used the time to relax.	<b>.857</b>	.877
I did relaxing things.	<b>.835</b>	.868
I took time for leisure.	<b>.812</b>	.846
% Variance Explained: 81.092		
Kaiser-Meyer-Olkin Measure of Sampling (KMO): .895		
Bartlett's Test of Sphericity: 9911.639		
Significance < .001		

The third step of analysis involved building three separate regression models for respondents who spent less than two days (short-trip model), three to seven days (short-vacation model), and eight days or more (long-vacation model) on their most recent vacation. As shown in Table 4, trip satisfaction had significant regression weights in all three models (short-trip model: standardized  $\beta = .247$ ,  $p < .01$ ; short-vacation model: standardized  $\beta = .240$ ,  $p < .001$ ; long-vacation model: standardized  $\beta = .223$ ,  $p < .01$ ), while mental strain of daily work had significant regression weights in the short-trip model (standardized  $\beta = -.204$ ,  $p < .01$ ) and the long-vacation

model (standardized  $\beta = -.181, p < .01$ ) and physical strain of daily work had only one significant regression weight in the short-vacation model (standardized  $\beta = .088, p < .05$ ).

**Table 3**  
**The results of principal component analysis on life satisfaction**

Factor/ items	Factor loadings	Communalities
Factor I: Life satisfaction		
The conditions of my life were excellent.	<b>.931</b>	.867
I was satisfied with my life.	<b>.925</b>	.856
In most ways my life was close to my ideal.	<b>.882</b>	.778
I felt I had the important things I wanted in life.	<b>.853</b>	.728
If I could have lived my life over, I would change almost nothing.	<b>.778</b>	.605
% Variance Explained: 76.684		
Kaiser-Meyer-Olkin Measure of Sampling (KMO): .870		
Bartlett's Test of Sphericity: 3338.646		
Significance < .001		

**Table 4**  
**The results of multiple regression analysis**

Model	Standardized Beta							R	R <sup>2</sup>
	Control variables			Vacation recovery experiences					
	Trip satisfaction	Mental strain of daily work	Physical strain of daily work	Control	Detachment	Mastery	Relaxation		
Baseline (N=813)	.239*** <sup>a</sup>	-.120***	.094**	.193***	.231***	.248***	.190***	.60	.37
Short trip <sup>b</sup> (N=132)	.247**	-.204**	.131	.244**	.127	.273***	.262**	.66	.43
Short vacation (N=494)	.240***	-.077	.088*	.173***	.287***	.206***	.168***	.58	.34
Long vacation (N=187)	.223**	-.181**	.095	.214**	.149*	.348***	.152*	.64	.42

<sup>a</sup> \*\*\*:significance at .001 level; \*\*:significance at .01 level; \*:significance at .05 level.

<sup>b</sup> Short trip: less than 2 days; Short vacation: 3-7 days; Long vacation: 8 days or more.

Furthermore, in the short-trip model, mastery experience during vacation contributed the most variance in predicting life satisfaction (standardized  $\beta = .273, p < .001$ ), followed by relaxation experience (standardized  $\beta = .262, p < .01$ ) and perceived control during vacation (standardized  $\beta = .244, p < .01$ ), while the regression weight of psychological detachment was not significant (standardized  $\beta = .127, p > .05$ ). The value of R-square indicated a moderate strength of association ( $R = .66, R^2 = .43$ ). In the short-vacation model, psychological detachment contributed

the most variance (standardized  $\beta=.287$ ,  $p<.001$ ), followed by mastery experience (standardized  $\beta=.206$ ,  $p<.001$ ), control during vacation (standardized  $\beta=.173$ ,  $p<.001$ ), and relaxation experience (standardized  $\beta=.168$ ,  $p<.001$ ). The short-trip model also had a moderate strength of association ( $R=.58$ ,  $R^2=.34$ ). In the long-vacation model, mastery experience had the highest regression weights (standardized  $\beta=.348$ ,  $p<.001$ ), followed by perceived control during vacation (standardized  $\beta=.214$ ,  $p<.01$ ), relaxation experience (standardized  $\beta=.152$ ,  $p<.01$ ), and psychological detachment (standardized  $\beta=.149$ ,  $p<.05$ ). The value of R-square also indicated a moderate strength of association ( $R=.64$ ,  $R^2=.42$ ).

In the final step, the regression weights of four independent variables in each model were compared. According to Clogg, Petkove, and Haritou (1995), when two models (e.g. short-trip model and short-vacation models) have the same independent and dependent variables, the regression weights of an independent variable in two different models can be compared by adding a dummy variable (e. g. short-trip model=0 and short-vacation model=1) and an interaction variable (the product of the dummy variable and the independent variable) in the regression model. In this way, the  $t$ -statistic and  $p$ -value associated with the interaction variable in the regression model reveals whether the magnitude of two regression weights are statistically different. Therefore, three regression models for comparison of regression weights were built (short-trip vs. short vacation, short-vacation vs. long-vacation, and short-trip vs. long-vacation). The results indicated that the regression weight of psychological detachment in the short-vacation model was significantly higher than the one in the short-trip model ( $t=0.159$ ,  $p<.05$ ), and the regression weight of mastery experience in the long-vacation model was significantly higher than the one in the short-vacation model ( $t=2.113$ ,  $p<.05$ ); however, the short-trip and long-vacation models were homogenous in terms of the relative importance of four vacation recovery factors in predicting life satisfaction after vacation.

In summary, the study results supported that life satisfaction after vacation is positively affected by all four factors associated with vacation recovery experience, including psychological detachment, relaxation experience, perceived control, and mastery experience. The results also showed that longer vacations might provide more opportunities for detachment and mastery experiences. These results indicated that taking a vacation, even a day trip or a weekend getaway, can help individuals to recover from stressful work, while individuals can benefit more from longer vacations.

## CONCLUSIONS

This research investigated whether individuals can benefit from recovery experiences during vacation. Drawing on the Effort-Recovery Theory (Meijman and Mulder, 1998), the Conservation of Resources Theory (Hobfoll, 1998), and mood regulation literature (Pakinson and Totterdell, 1999), it was hypothesized that perceived control, psychological detachment, mastery experience, and relaxation experience during vacation should have positive effects on perceived life satisfaction after vacation. The study results indicated life satisfaction after vacation is positively influenced by all four recovery-experience factors. As argued before, previous tourism studies have tended to examine satisfaction and purchase intentions of a particular tourism service. Even though a number of studies in the tourism literature (Dolinar, Yanamandram, and Cliff, 2012; Neal, Uysal, Sirgy, 2007; Sirgy et al., 2011) have examined how tourism services in general affect tourists' life satisfaction, this research offered an insight into the psychological process underlying vacation recovery. This research further examined whether the psychological process associated with recovery is moderated by the duration of vacation. Conforming to Sluiter, Frings-Dresen, Meijman, and Van der Beek's (2000) findings that a weekend vacation can only serve as a form of meta-recovery (rather than macro-recovery), this research found that longer vacations might provide individuals more opportunities to be psychologically away from the work-place and distracting from the job by having challenging experiences and learning opportunities in other domain.

Given the positive effects of vacation recovery experiences and the moderating effect of vacation length, it is suggested employers should understand how their employees can benefit from vacations, particularly longer vacations. Even though paid vacation is mandated in most developed countries, it has been reported that more employees in the United States choose not to go on a vacation because they worry about keeping their jobs (Rosenbloom, 2006). In fact, taking a vacation can help employees to reverse load reactions, regulate impaired mood, and gain more internal resources to deal with the work demands after vacation. Vacation might also lead to better work performance (Fritz and Sonnentag, 2006). Therefore, employees should encourage their employees to take more vacations.

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