

# Visitor characteristics matter: How the positive impact of visit duration on visitor satisfaction at visitor attractions is moderated

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## **Visitor characteristics matter: How the positive impact of visit duration on visitor satisfaction at visitor attractions is moderated**

### **Abstract:**

Operating in a highly competitive market, it is crucial for visitor attractions (VAs) to generate visitor satisfaction (VS). Existing research suggests uniformly increasing visitors' visit durations (VD) to positively affect VS. However, contrary findings have appeared; it remains unclear why and under which conditions the positive effect occurs and is leveraged or weakened. This study empirically analyses the moderating and mediating effects on the VD–VS relationship using a visitor survey. Results indicate that the relationship is strengthened, with higher levels of visitors' experience with other related VAs, with increasing levels of importance of recommendations by others to the visitation decision, and with decreasing levels of visitors' personal life satisfaction. Moreover, “value for money” mediates the effect of VD on VS. In turn, this study provides practical insights into a more visitor segment-specific utilization of VD's effect for managing VS more efficiently.

*Keywords: Visitor satisfaction, Visit duration, Visitor attraction*

*Track: Tourism Marketing*

## 1. Introduction

Within the flourishing tourism industry, visitor attractions (VAs) are one of the main reasons of tourists choosing a specific destination. Thus, worldwide number of VA operators increases (Kruczek, 2012) making a competitive advantage crucial. This can be most likely achieved by high levels of visitor satisfaction (VS) (Jin, Lee, & Lee, 2015), especially since the importance of positive recommendations has increased by online rating platforms (Kempiak, Hollywood, Bolan, & McMahon-Beattie, 2017).

One of the most important drivers of VS is time spent within the VA, i.e., visit duration (VD) (Del Chiappa, Ladu, Meleddu, & Pulina, 2013). With increasing VD, visitors' individual overall visit experience increases (Wu, Li, & Li, 2014), which impacts visitors' assessments of value for money (VFM), i.e., the evaluation of the VA based on the weight between investment and gained experience. Hence, VD should increase perceived VFM that the VA provides, which in turn should enhance VS (Jin et al., 2015). Several researchers (e.g. Del Chiappa et al., 2013) indeed found significant, positive effects of VD on VS with VAs, however, Jeong & Lee (2006) reported only a slight direct effect, Nowacki (2013) revealed mixed, partly non-significant results. Thus, it remains unclear under which conditions the positive effect of VD on VS might actually occur.

Despite high managerial relevance, existing literature has not yet analysed any moderating effects for the relationship VD-VS and not any mediating variable that might explain why VD positively affects VS.

Hence, this article analyses for the first time the moderating effects of three visitor-specific moderators, i.e. visitors' level of experience, importance of recommendations for the visitation decision, and visitors' personal life satisfaction at the time of the visit, on the VD-VS relationship, using a VA survey with 1,620 visitors. Results show that the positive impact of VD on VS is stronger, when: a) visitors have higher levels of experience with other related VAs; b) recommendations by others were not important for the visitation decision; and c) there were lower levels of visitors' personal life satisfaction. Besides, this paper offers for the first time an empirical assessment of the positive mediating effect of VFM on the VD-VS relationship. With increasing VD, VFM is evaluated more favourably which has a positive effect on VS. Thus, VA managers should increase VD primarily by enhancing the perceived value of the visit and the corresponding utility of the offered service to gain more favourable evaluations of visitors' perceived VFM.

## 2. Literature review and hypotheses development

VD explains the time spent by the visitor at the VA; it is influenced by the visitor, e.g., age (Leask, Fyall, & Barron, 2013), and the VA itself, e.g., exhibition techniques (Kempiak et al., 2017).

VS creation is crucial for VA managers as it is a main driver of customer loyalty, a key to success, e.g., higher sales (Ye, Law, Gu, & Chen, 2011). VD at a VA might be a crucial factor affecting VS. Rising VD might enlarge visitors' visitation experience (Kempiak et al., 2017). Thus, understanding whether, how, and why changes in VD might affect VS is critical for VAs. Very few studies have investigated the effect of VD on VS yet: Del Chiappa et al. (2013), Elottol & Bahauddin (2011), Jeong & Lee (2006), Moscardo & Pearce (1986) and Pearce (1991) confirmed a proposed positive effect of VD on VS in VAs, Nowacki (2013) reported partly non-significant and a significant, negative effect for different VAs. Despite the mixed findings, existing literature lacks to analyse mediating variables, hence explaining why positive or negative changes in VS might occur through increased VD.

We propose, that VD positively influences VS by increasing perceived VFM, a key to success for VAs (Geissler & Rucks, 2011). VD leads to increasing excitement and experience quality, thus, better evaluations of VFM, leading finally to higher degrees of VS (Jin et al., 2015). Hence, we propose:

*H1: VD at VAs has a positive effect on VS with the VA*

*H2: The positive effect of VD at VAs on VS with the VA is mediated by visitors' perceived VFM of the visit experience*

Visitor motivation and behaviour is influenced by visitors' level of experience, thus, visits to the studied or similar VAs (Spinks, Lawley, & Richins, 2005). Experienced visitors want to gain knowledge (Brida, Disegna, & Scuderi, 2014); they engage more intensively and concentrated with selected objects rather than to attaining an overview of the VA as less experienced visitors do (Brida, Meleddu, & Pulina, 2016). The desire to gain knowledge (Brida et al., 2014), intrinsic visit motivation and absorbed involvement with the objects (Fielding et al., 1992) results in a different time perception, time passes more rapidly than actual time (Fielding, Pearce, & Hughes, 1992); i.e., visitors have the feeling spending, e.g., two hours within the VA, but in actual time it was only one hour. They rate VD as a more enjoyable aspect of the visit experience (Fielding et al., 1992) compared to less experienced visitors. They perceive VD as longer than the actual time; i.e., time passes slowly due to lower experience value by weaker interest and intellectual engagement in the VA content

(Zakay, 2014). They want to gain an overview, but do not use VD for beneficial purposes, e.g., knowledge increase (Fielding et al., 1992), enjoyment decreases; they feel higher time awareness and pressure as time is limited (Fielding et al., 1992). Experienced visitors use VD efficiently, beneficially and useful, are intellectually demanded and thus report more visit enjoyment. As time passes more rapidly than actual time, they report better evaluations of VFM than unexperienced visitors (Jin et al., 2015). Thus, we purpose:

*H3: The positive effect of VD at VAs on VS with the VA is stronger for visitors reporting high levels of experience than for those indicating low levels of experience.*

Visitors who base their visitation decisions (more) strongly on recommendations compare their own visit experiences with the experiences reported in the recommendation (Lim & Chung, 2011), are more extrinsically motivated and want to perceive what the recommender described (Meethan, 2001). Hence, they are more distracted during the visit and less able to beneficially experience the VA, making valuable knowledge gain more difficult. The decreased beneficial experience and higher demands sourced in positive recommendations weakens the positive effect of VD on VS (cf. H1). VS level and perceived VFM increases more slowly with increasing VD compared to visitors indicating low importance of recommendations for visitation decision. Those are less demanding, show higher interest and involvement levels (Greenwald & Leavitt, 1984), are more intrinsically motivated, attracted by VAs content and knowledge gain (Packer & Ballantyne, 2002); hence, are more likely to perceive positive value in VA visit. Higher concentration and attention levels, fun, leisure and enjoyment (Yoshi Iwasaki, 2010) result in a more valuable perception of VD. Thus, we assume, that those visitors use a unit of VD time more beneficially regarding VS fulfilment while perceiving a better VFM than those visitors who based their visitation decisions more strongly on recommendations. Hence, we purpose:

*H4: The positive effect of VD at VAs on VS with the VA is stronger for visitors reporting lower levels of importance of recommendations for their visitation decisions than for those who base their visitation decisions (more) strongly on recommendations.*

Persons with low personal life satisfaction report higher levels of social and intrapersonal stress, caused by less positive social relationships and support (Gilman & Huebner, 2006), and are especially in need of stress-relieving, leisure activities, e.g., VA visits, which decreases stress level awareness by their escaping and distracting features. Visitors perceive a more beneficial experience and better VFM, compared to visitors with high personal life satisfaction. Hence, we purpose:

*H5: The positive effect of VD at VAs on VS with the VA is stronger for visitors reporting lower levels of personal life satisfaction than for those reporting higher levels.*

### **3. Empirical study**

#### *3.1 Method and procedure*

In 2016, a visitor survey in a German wax museum was conducted. At the exit, employees invited 2,000 visitors to complete an anonymous, self-administered paper-and-pencil questionnaire. 89.55 % of completed questionnaires were suitable for the analysis, N=1,791. Because of different visit motivations and behaviours, destination residents were excluded (N=1,620, mean age: 32.8 years, 63.0% female) (Rittichainuwat, 2008) as their inclusion would have restricted the significance of the findings.

#### *3.2 Measures*

Level of experience was measured by the number of visits to the wax museum itself and other wax museums before, using an open-ended, one-item scale (Spinks et al., 2005). Importance of recommendations to the visitation decision was measured on a one-item, 7-point semantic differential scale (Kempiak et al., 2017). Visitor's personal life satisfaction (Diener, Emmons, Larsen, & Griffin, 1985) and the mediating variable, i.e., perceived VFM (Sweeney & Soutar, 2001), were measured by one-item, 7-point Likert scales. The focal independent variable (i.e., actual VD), was measured using an open-ended, one-item scale (Del Chiappa et al., 2013). The focal dependent variable (i.e., VS), was based on a three-item scale including one Likert scale item ("The visit was satisfying to me") and two semantic-differential items ("How satisfied were you with your visit to this visitor attraction" and "How satisfied or dissatisfied were you with your visit?") (Cronbach's  $\alpha=.92$ ) (Finn, 2012).

#### *3.3 Results*

A hierarchical regression analysis was conducted. Homoscedasticity and linearity of the residuals showed no serious violations of the model premises, residual error values were independent (Durbin-Watson test statistic (1.968)), the model does not provide any serious evidence of multicollinearity (VIF=1.034). Results of Model 1 (Table 1) indicates a positive effect of VD ( $\beta=.287$ , adj.  $R^2=.082$ ,  $p=.000$ ) on VS, H1 is supported by the empirical data.

	Model 1			Model 2		
	$\beta$	t	p	$\beta$	t	p
VD	.287	12.054	.000	.803	7.114	.000
VD x Levels of experience				-.136	-3.103	.002
VD x Importance of recommendation for visit decision				.076	2.997	.003
VD x Personal life satisfaction				-.532	-4.970	.000
Levels of experience				-.082		
Importance of recommendation for visit decision				.056		
Personal life satisfaction				.442		
Adj. R	.082			.335		
Change Adj. R <sup>2</sup>				.253		

Table 1: Regression Results Model 1 and Model 2

To assess the mediating effect of visitors' perceived VFM of the visit experience on the VD-VS relationship, we applied a bootstrapping procedure (1,000 resamples, CI=95%) and controlled for the conditions that a mediation must fulfil: the independent variable (VD) is related to the dependent variable (VS) ( $\beta_c=.287$ ,  $p=.000$ ), the independent variable is related to the mediator (VFM) ( $\beta_a=.229$ ,  $p=.000$ ), and the mediator is related to the dependent variable ( $\beta_b=.454$ ,  $p=.000$ ). The confidence interval (CI) for the indirect effect of VD on VS through VFM does not contain zero (lower 95% CI=.0772, upper 95% CI=.135). The direct effect of VD on VS is significant ( $\beta_c'=.183$ ,  $p=.000$ ), indicating a partial mediation of the perceived VFM (Zhao, Lynch, & Chen, 2010). Thus, all conditions for mediation are met ( $R^2=.278$ ,  $p < .000$ ); thus, H2 is supported.

Model 2 ( $\Delta$  Adj.  $R^2=.253$ ,  $p=.000$ ) tested the remaining assumptions. The interaction between level of experience and VD on VS was significant and positive ( $\beta=.076$ ,  $p=.003$ ), supporting H3. Thus, the positive effect of VD on VS is stronger for visitors reporting high levels of experience than for those indicating low levels of experience. The moderating effect of the importance of recommendations for visitation decisions on the effect of VD on VS was significant and negative ( $\beta=-.136$ ,  $p=.002$ ), supporting H4. Thus, the positive effect of VD on VS is stronger for visitors reporting lower levels of importance of recommendations for their visitation decisions than for those who base their visitation decisions (more) strongly on recommendations. In support of H5, the moderating effect of personal life satisfaction on the relationship of VD on VS was significant and negative ( $\beta=-.532$ ,  $p=.000$ ). Thus, the positive effect of VD on VS is stronger for visitors reporting lower levels of personal life satisfaction than for those reporting higher levels.

#### **4. Discussion and conclusion**

The effect of VD on VS in VAs has been analysed before but revealed mixed findings. No moderating and mediating variables were included, although they are crucial to understand the conditions under which a prolonged VD might actually help to gain higher levels of VS. Our results show that VD has a positive effect on VS (Model 1), the positive effect is mediated by visitors' perceived VFM of the visit experience. Model 2 shows that VD's positive effect on VS is strengthened: a) with an increasing level of experience reported by visitors; b) with an increasing level of importance of recommendations to visitors' visitation decisions; and c) with a decreasing level of personal life satisfaction.

VA managers should attempt to increase VD to increase VS (Model 1), e.g., by provision of additional detailed information about exhibits and their background (i.e., via multimedia guides), application of contemporary exhibition techniques (i.e., multi-sensory activities) as they increase interaction with displayed objects and thus VD and learning (Kempiak et al., 2017). As VFM partially mediates the effect of VD on VS, VD should be increased by additional experiences, e.g., new rides. Thus, VA managers might increase admission fees without a negative impact on VS since visitors likely have a longer VD, thus experiencing more and evaluating VFM better. By offering the possibility of returning to the VA on another day without extra costs, VAs can enlarge the cumulated VD, thus the experience value, e.g. usage of more rides, which leads better evaluations of VS and VFM.

Individualised experiences for visitor segments derived from applied moderating variables, can increase VD or influence the transformation of VD into VS: Experienced visitors have a fundamental understanding of the VA content and are more interested in obtaining additional information, knowledge gain and intensive exhibit interaction (Brida et al., 2014). Thus, guided tours, which cover only few exhibits but address them in depth, can increase VD for this visitor segment.

To increase VD-VS transformation for visitors with lower levels of experience with related VAs, VA managers should encourage those visitors to interact more intensively with displayed objects, a visitation benefit that impacts experience value positively and thus VD-VS transformation, but keep in mind the limited time of this visitor segment. By offering very short guided tours or self-guidance techniques, e.g., short information, prepared in an entertaining way to remove inhibition threshold, i.e., via a quiz, visitors are intellectually demanded, increase VD and use VD more beneficial by gaining a better experience value, e.g., via fun perceived by the quiz; thus, increase VD-VS transformation.

Visitors for whom recommendations by others were less important for the visitation decision have higher interest, concentration and involvement levels, are more intrinsically motivated, attracted by VAs content and knowledge gain (Packer & Ballantyne, 2002). As they like independency, we recommend offering self-guiding techniques, i.e. multimedia guides, to increase VD which increases VS by added value.

Visitors for whom recommendations by others were more important want to confirm a preestablished image during their visit and are thus detracted from the visit experience value (Meethan, 2001). By comparability reduction of the visit with the one of the recommender, concentration and thus interaction with displayed objects increases as does VD-VS transformation. Individualised, playful, interactive guided tours or changing “exhibit of the day” for which special activities or information are available only at that day decreases experience comparability, concentration and knowledge gain increases. VD is used more beneficially, thus VS increases and transformation of VD into VS is strengthened.

Visitors with lower levels of personal life satisfaction should reduce stress, e.g., via creativity (Kaimal, Ray, & Muniz, 2016), and increase social interaction. In group workshops with hands-on experiences (e.g., photography, painting), participants meet new people, gain new skills, decrease stress, are distracted from daily life and increase VD, thus finally VS.

Visitors indicating higher levels of personal life satisfaction have a social visit motivation (Maeng, Jang, & Li, 2016). Discussion events, to exchange thoughts with others and to gain new perspectives about a topic, include the social orientation of these visitors. By participation, VD is used more beneficially and valuable by knowledge gain and new social contacts, hence, leading to higher levels of VD-VS transformation.

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