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Satisfaction vs Experienced Utility: Current Issues and Opportunities

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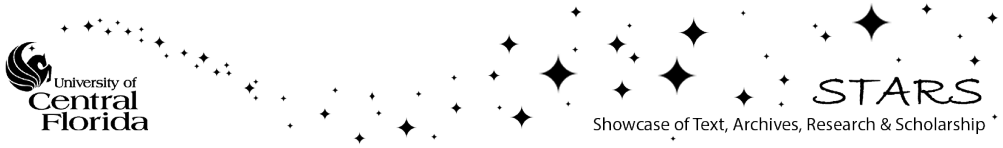

Satisfaction vs experienced utility: Current issues and opportunities

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Satisfaction is one of the most studied constructs in many fields, including tourism. As an important marketing metric, satisfaction is typically measured with self-reported retrospective evaluations of travel experience. However, the memory-based approaches have numerous limitations related to social desirability, availability heuristics, previous knowledge, mood at the time of answering questions and do not reflect the moment-by-moment nature of visitor experience. The shortcomings and limitations of self-reported retrospective evaluations could be eliminated by introducing pre-visit, on-site, and post-visit instant components of experienced utility as measures of visitor experience. The experienced utility allows eliminating the majority of self-report biases, capturing the affective components of visitor experience, analyzing relationships between anticipation, experienced, and remembered utilities, and applying emerging moment-based research techniques. Therefore, this manuscript proposes a measurable definition of experienced utility and appropriate measures to assess visitor experience.

Keywords: experienced utility; satisfaction; anticipation; instant utility; remembered utility

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Introduction

The prevalent research practice in measuring satisfaction as an outcome of consumption is the use of self-reported retrospective evaluations (Hill & Alexander, 2017). However, these memory-based approaches have numerous limitations and do not reflect the moment-by-moment nature of tourism experience that extends from anticipation to remembering (Cohen, Prayag, & Moital, 2014). Tourism activities are highly experiential taking place over an extended time period (Mannell & Iso-Ahola, 1987; Chang, 2018), which demands measurement both in real time and retrospectively for capturing the true nature of consumption. However, self-reported retrospective measures have the limitations because they 1) are biased by social desirability, availability heuristics, and mood while answering questions (Holtgraves, 2017; Nazlan, Tanford, & Montgomery, 2018);2) typically do not capture changes in affective dimensions of customer experience (Prayag, Hosany, Muskat, & Del Chiappa, 2017); and 3) do not reflect the whole spectrum of customer evaluations (Bianchi, 2016). Conversely, the experienced utility may be superior in 1) capturing the affective components of visitor experience, 2) eliminating the majority of self-report biases, 3) investigating the relationships between temporal components of visitor experience with different antecedents and outcomes, and 4) applying emerging multidisciplinary moment-based research techniques. Thus, this manuscript puts forward an argument that the experienced utility construct may be a better measure of visitor experience in tourism research and analyzes its advantages in comparison with the widely-used satisfaction concept.

Satisfaction and its measures

Satisfaction is one of the most commonly used constructs in explaining visitor experience in tourism. Oliver (2014) described satisfaction as a consumer's overall fulfillment response, which

includes a state of under-fulfillment and over-fulfillment resulting from the trade-off between pre-consumption and post-consumption attitudes. Expectancy disconfirmation theory is the most widely accepted theoretical framework for studying customer satisfaction (Oliver, 1980), while researchers also suggest that equity theory (Adams, 1963), attribution theory (Kelley, 1967), contrast theory (Dawes, Singer, & Lemons, 1972), assimilation theory (Anderson, 1973), and other frameworks could be applied in satisfaction research (e.g., Oh, 1999; Pizam, Shapoval, & Ellis, 2016; Prayag, Hosany, Muskat, & Del Chiappa, 2017).

The literature differentiates between transaction-specific satisfaction, as evaluation of single episodes of interaction with a product or service (Lee, Backman, & Backman, 2018), as opposed to the cumulative formulations of satisfaction as a function of multiple interactions with a product or service (Ekinci, Dawes, & Massey, 2008). While the transaction-specific approach has an advantage of capturing satisfaction immediately after each product or service interaction (Danaher & Matson, 1994), it does not reflect the overall experience (Oliver, 1980; Bitner & Hubbert, 1994; Ladeira, Santini, Araujo, & Sampaio, 2016). The traditional instruments of satisfaction research are self-report scales with several product or service attributes (Vavra, 1997; Hill & Alexander, 2017), measuring satisfaction as a self-reported retrospective evaluation of the previous experience.

Limitations of satisfaction

A considerable amount of literature describes satisfaction as a cognitive state, resulting from a comparison between previous reference points from expectations and subjective experience with the performance of the product or service (De Rojas & Camarero, 2008). However, using self-reported retrospective measures to assess satisfaction with previous experiences has numerous limitations. Respondents tend to provide socially desirable responses that are not always

reflecting their real feelings (Fischer & Fick, 1993; Holtgraves, 2017). People's answers are biased by availability heuristic as they make judgments based on things that come to their mind first (Nazlan, Tanford, & Montgomery, 2018). Survey responses could also be dependent on previous knowledge (Ross, 1989) and the mood while answering questions (Eich & Metcalfe, 1989). Several studies also describe situations when participants lack the introspective ability to accurately assess themselves (Silvia & Phillips, 2011). Furthermore, the affective components of satisfaction are dynamic and time-dependent (Lee & Kyle 2012; Kim & Fesenmaier, 2015; Prayag, Hosany, Muskat, & Del Chiappa, 2017) and therefore, should be captured in real time. Some of these limitations of self-report methods might be eliminated by applying more objective measures that are not influenced by opinions, momentary moods, or perspectives of respondents.

Another issue is that one-time measured satisfaction does not capture the temporal dimensions of customer experience, especially a trip experience, which consists of pre-visit, on-site, and post-visit components (Cohen, Prayag, & Moital, 2014). Pre-visit anticipation significantly influences future experience (Dixon, Victorino, Kwortnik, & Verma, 2017). Additionally, customer experience lasts much longer than the actual duration of the trip because of memories and post-visit retrospective evaluations (Pine & Gilmore, 2011). Post-visit evaluations also contribute to the total amount of pleasure received from the experience (Morewedge, 2015) and have significant effects on subsequent behavior (Tung, Lin, Qiu Zhang, & Zhao, 2017; Parks & Santos, 2017). Therefore, experience should be measured at different time points, and the impacts of particular travel activities should be measured by comparing experience before, during, and after the event.

Furthermore, the satisfaction construct does not reflect the whole spectrum of customer evaluations. As a result, researchers need to investigate additional concepts such as satisfaction

and consumer delight at the positive end of the satisfaction spectrum (Rust & Oliver, 2000; Berman, 2005, Kim, Vogt, & Knutson, 2015) and dissatisfaction (Zairi, 2000; Sanchez-Garcia & Currás-Pérez, 2011; Xu & Li, 2016), as well as disappointment and regret (Zeelenberg, Van Dijk, Manstead, & der Pligt, 1998; Zeelenberg & Pieters, 2004) at the negative end. The bipolar nature of satisfaction was previously acknowledged in tourism and hospitality research (i.e., Alegre, & Garau, 2010; Bianchi, 2016); however, research with positive, neutral, and negative values of satisfaction is lacking in the literature.

Experienced utility and its measures

Those shortcomings and limitations of satisfaction could be eliminated by introducing the experienced utility construct as a measure of visitor experience. The concept of utility has different meanings in different contexts. The economic utility function represents consumer preferences in a choice set of goods and services with values assigned to each alternative (Fishburn, 1970; Bordley & LiCalzi, 2000; Kontek & Lewandowski, 2017). On the other hand, the experienced utility is the amount of pleasure or displeasure evoked from experience (Kahneman, Wakker, & Sarin, 1997), which is a moment-based variable that can be measured instantly and directly.

The basic unit of experienced utility is the instant utility, or "a measure of hedonic and affective experience, which can be derived from immediate reports of current subjective experience or psychological indices" (Kahneman, Wakker, & Sarin, 1997, p. 376). The instant utility is influenced by sensory experiences, feelings, imaginations, and thoughts before, during, and after the visit (Figure 1). The anticipation utility is described as the process of deriving positive or negative feelings from savoring future experiences, which allows repeatedly experiencing emotional impacts of future events before they actually happen (Loewenstein &

Elster, 1992). The experienced utility is the impact of instant utilities evoked from the actual experience during the visit, while remembered utility is inferred from the recollection of autobiographical memories and can evoke both negative and positive instant utilities (Morewedge, 2015; Phillipe, Koestner, Lecours, Beaulieu-Pelletier, & Bois, 2011). The total utility or the integral of all moments of instant utility is mentioned as a concept in the literature (Kahneman, 2003); however, a standard method to calculate the relative contribution of pre-, during-, and post-visit components to the total utility does not exist (Morewedge, 2015) and might be too difficult to achieve, undermining the principle of scientific parsimony.

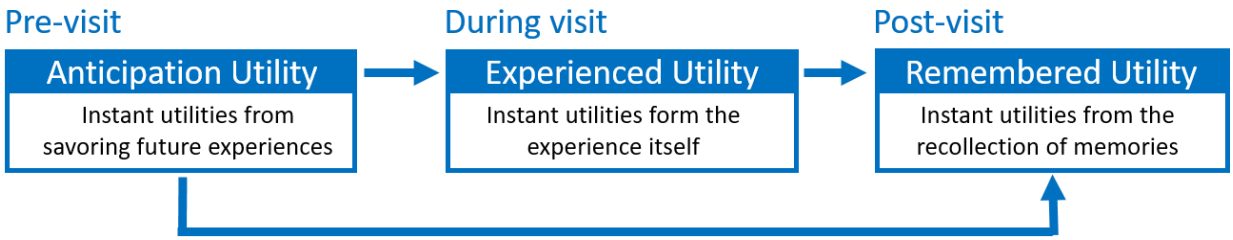

Figure 1. Pre-, during-, and post-visit components of visitor experience.

As an application of experienced utility, Carmon and Kahneman (1996) explored the experienced utility of queuing by analyzing people's real-time responses and found that a longer line that ended with a fast-moving segment had better retrospective evaluations than a shorter queue without any positive experience at the end. In another study, Baucells and Bellezza (2016) outlined temporal profiles of instant utility before, during, and after events by introducing the anticipation-event-recall model based on three key psychological elements: adaptation, conceptual consumptions, and time distance. In tourism context, Chang (2018) applied the experienced utility concept to explore consumers' post-visit evaluations of tangible and intangible hospitality and tourism products. In a similar vein, Barnes, Mattsson, and Sorensen

(2016) investigated remembered utility of a safari park visitors and concluded that longer-term remembered experiences have stronger effects on customers' revisit intentions.

The momentary nature of visitor experience demands to apply moment-based methodology. One method of measuring instant utility before, during, and after the trip is the Experience Sampling Method (Csikszentmihayi & Larson, 1987), which involves asking participants to report their actions and feelings on random occasions of time throughout the experience. Quinlan Cutler, Doherty, and Carmichael (2018) suggest that Experience Sampling Method (ESM) could be used to capture real-time tourist experience, while modern technologies allow using smartphones, developing spatial ESM procedures, and applying psychophysiological techniques. Experience sampling would also help to analyze the impacts of particular travel activities by comparing visitors' experienced utility across different phases of experience (i.e., before, during, and after an event or trip) as well as across different experiences. However, the experience sampling technique is also based on people's responses and might have self-report limitations. A more effective method of capturing instantaneous experienced utility is based on recording responses of the human autonomic nervous system when respondents cannot control their psychophysiological responses (Stern, Ray, & Quigley, 2001).

Recent studies in cognitive science suggest that people's attitudes and behaviors are often influenced by automatic processes and human decisions could be made outside of conscious awareness (Martin & Morich, 2011; Bargh et al., 2012; Newell & Shanks, 2014; Li, Scott, & Walters, 2015). Kihlstrom (1987) provided several examples of mental processes that lie beyond conscious awareness but also influence human experience, thoughts, and actions. Bargh and Chartrand (1999) advanced the idea that even highly complex cognitive activities can exist outside of conscious understanding. Thus, psychophysiological and neuroimaging research

techniques (e.g., electrodermal activity, electrocardiography, pupillometry, electroencephalography, etc.) that do not depend on the people's capability to understand and describe their emotions (Larsen & Fredrickson, 1999) could help to capture the unconscious components of consumer experiences.

Different experiences trigger different activation patterns of sympathetic and parasympathetic branches of the human autonomic nervous system (Kreibig, 2010), which can be useful in measuring experienced utilities of tourist activities. The sympathetic system prepares the body to react to stress and refers to mobilizing and activation, while the parasympathetic system is associated with dampening and relaxation (Ekman, Levenson, & Friesen, 1983). Emotional arousal as an indicator of experience intensity can be measured by using electrodermal activity, electrocardiography, and pupillometry (Stern, Ray, & Quingley, 2001), while the valence of experienced utility can be captured by applying methods such as facial electromyography, electroencephalography.

Electrodermal activity (EDA) reflects changes in the electrical properties of the skin caused by interaction between respondents' emotional states and environmental events and can be a proper indicator of respondents' arousal or intensity of experience (Koelsch, 2005; Kim & Fesenmaier, 2015; Li, Walters, Packer, & Scott, 2018). Electrocardiography (ECG), including measures of heart rate, blood pressure, and heart rate variability can be considered as an objective measure of instant experienced utility since they reflect activity of the autonomous nervous system and provide information about the current emotional state of respondents (Appelhans & Luecken, 2006; Mauss & Robinson, 2009; Selvaraj, Murugappan, Wan, & Yaacob, 2013; Li, Walters, Packer, & Scott, 2018). The literature describes pupillometry as another method of reflecting emotional arousal, which could be related to the intensity of travel

experience from moment to moment (Breadly, Miccoli, Escrig, & Lang, 2008; Eckstein, Guerra-Carrillo, Singley, & Bunge, 2017).

Elecromyography (EMG) of facial muscles makes it possible to analyze the valence of experienced utility (Tassinary, Cacioppo, & Vanman, 2007; Li, Walters, Packer, & Scott, 2018). The contraction of the corrugator muscle, which is related to frowning, is associated with negative experience, which zygotomaticus muscle that draws the mouth angle reflects positive emotional states (Tan et al., 2012). Electroencephalography (EEG), or electrophysiological monitoring of electrical activity of the brain, might be seen as one more promising technique in measuring instant components of experienced utility (Luck, 2015; Moyle, Moyle, Bec, & Scott, 2019). Applying EEG in comparison with other behavior, self-report, and psychophysiological methods will potentially lead to higher temporal resolution of the results (Menon et al., 1997; Luck, 2015), while modern portable EEG systems make it possible to use them in real tourism settings (Mohsen, Zekry, & Elshazly, 2016; Bobby, Lavanya, Jayashree, & Viswanath, 2017).

Psychophysiological responses are not controlled by people and can eliminate the limitations of self-report and behavioral measures. Paulus (2002) suggested that psychophysiological measures can overcome respondents' cognitive and social desirability biases. Larsen and Fredrickson (1999) asserted that psychophysiological techniques do not rely on respondents' ability to verbalize their emotional responses. Moreover, psychophysiological recordings provide experienced utility moment-by-moment (Wilhelm & Grossman, 2010) before, during, and after the experience. Li, Walters, Packer, and Scott (2018) applied several psychophysiological measures of skin conductance and facial electromyography in tourism settings and confirmed the ability of psychophysiological techniques to capture moment-by-moment responses to tourism advertising.

Advantages of experienced utility

Experienced utility with its moment-by-moment measures may be a better concept to capture the multidimensional nature of experiential consumption in tourism for several reasons. First, different techniques of measuring experienced utility could help to avoid self-report and memory biases while measuring evaluations of all contiguous episodes without distracting people from normal activities. Psychophysiological data from the autonomic nervous system may help to capture unconscious components of consumer experience by using the moment-by-moment instant utility on a ratio scale with a neutral point. Measures and techniques in Table 1 are provided as a guide for future research.

Table 1
Techniques and measures of experienced utility.

Measures	Dimensions	Techniques
Systematic self-reports at random time intervals	Discrete emotions, intensity, valence, feelings	Experience sampling method (ESM)
Skin conductance	Intensity	Electrodermal activity (EDA)
Facial muscle responses	Valence	Electromyography (EMG)
Electrical activity of the heartbeat	Intensity	Electrocardiography (ECG)
Pupil size and reactivity	Intensity, cognitive efforts	Pupillometry
Electrophysiological response of the brain	Valence, intensity, neurocognitive processes	Electroencephalography (EEG)

Source: Authors

Second, introducing experienced utility enables capturing the whole spectrum of outcomes of positive and negative emotions evoked by the product or service, including satisfaction, dissatisfaction, regret, delight, and other currently applied constructs. For instance, customer delight at the positive end of satisfaction spectrum (Oliver, Rust, & Varki, 1997) will be related to a high positive level of experienced utility, while dissatisfaction, regret, and

disappointment at the negative end of the spectrum (Zeelenberg & Pieters, 2004) will be presented as a negative experienced utility.

Third, differentiating several components of experienced utility as anticipation utility, experienced utility, and remembered utility allows analyzing relationships between different components of utility and their relative effects on customer outcomes. It is possible that in contrast with satisfaction, different components of experienced utility are influenced by different antecedents (i.e., expectations, motivation, familiarity, etc.) and have different effects on various outcomes. For example, studies show the influence of anticipation utility on customer well-being (Kahneman, 1999; Morewedge, 2015), while remembered utility is associated with revisit intentions (Barnes, Mattsson, & Sorensen, 2016).

Fourth, the proposed moment-based measurements help to detect unconscious affective components of visitor experience, which may contribute to important human-oriented outcomes. The previous literature proposed the effects of positive experience on well-being (Uysal, Sirgy, Woo, & Kim, 2016), health (Van Cappellen, Rice, Catalino, & Fredrickson, 2018), and transformation (Reisinger, 2013). However, these relationships have not been empirically investigated, and the literature on well-being and transformation outcomes still remains conceptual.

Furthermore, researchers may cross-fertilize tourism theories with those in other fields by integrating experienced utility with theories related to time discounting (Matta, Concalves, & Bizarro, 2012), duration neglect (Kahneman, Fredrickson, Schreiber, & Redelmeier, 1993), violations of dominance (Mellers, Weiss, & Birnbaum, 1992), and other insights from psychology and behavioral economics. The previously observed effects of time, memories, and

anticipation could be applied to different temporal components of experienced utility, and thus, foster fruitful opportunities for tourism research.

Despite the obvious advantages of applying the experienced utility construct in tourism research, it is necessary to take into account several limitations related to the expensiveness of the moment-based methodology and the complexity of data analysis and interpreting results. Additionally, the literature suggests that psychophysiological responses could depend on different external (temperature, humidity, luminance) and internal (medications, age, movements) factors (Picard, Fedor, & Ayzenberg, 2016). Therefore, researchers need to control additional environmental and confounding factors while conducting laboratory and field experiments with moment-based techniques.

Conclusion

This article suggests that experienced utility may be a better measure of visitor experience than the widely applied satisfaction in tourism research. This concept with moment-based measures can be applied in exploring consumer outcomes from a variety of service products including tourism, hospitality, healthcare, and public service. These products have pre-visit, on-site, and post-visit temporal components, with potentially different antecedents and outcomes.

Future research on experienced utility will lead to a better understanding of tourists' loyalty as well as other important customer-oriented outcomes of tourism activities such as well-being, health, and transformation, which are mostly based on the affective components of customer experience. Further applications of experienced utility in tourism, hospitality, healthcare, and public service are needed to assess the reliability and validity of each measure,

and investigate the relationships between anticipated utility, experienced utility, remembered utility, as well as their antecedents and outcomes.

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