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THE EFFECTS OF ANTICIPATORY EMOTIONS ON SERVICE SATISFACTION AND BEHAVIORAL INTENTION

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STRUCTURED ABSTRACT

Purpose

Emotions have provided a foundation for many causative models in marketing, notably advertising, brand development and buyer behavior. However, models of customer satisfaction have been dominated by cognition rather than affect which has been under-researched in this context. Furthermore, a significant omission in the current literature is the impact of affective expectations. This paper seeks to contribute critical discussion about the role of expectations and anticipation in subsequent satisfaction by incorporating anticipated emotions into a model to measure satisfaction.

Design/methodology/approach

A series of hypotheses relating anticipated and experienced emotions to satisfaction and behavioral intention are tested in the context of a relatively high involvement, hedonistic service encounter in a longitudinal quantitative study involving 304 participants.

Findings

The results indicate that the emotions expressed by respondents when thinking about the forthcoming event were significantly associated with post-experience emotions. Furthermore, it was observed that positive emotions had no effect on satisfaction, but there was a significant effect of negative emotions on (dis)satisfaction.

Practical implications

The results indicate a complex relationship between emotions, satisfaction and behavioral intention. Implications for management during the pre-consumption phase are discussed, including the benefits to be gained from pre-consumption communication that seeks to engage with consumers by arousing anticipatory affect.

Originality/value

The paper makes a methodological contribution by using longitudinal data rather than retrospectively collected data of emotions, and uses an actual service encounter rather than a hypothetical scenario which have limited many previous studies of emotions.

KEYWORDS: anticipation, experience, emotions, satisfaction, behavioral intention, longitudinal

CLASSIFICATION: RESEARCH PAPER

THE EFFECTS OF ANTICIPATORY EMOTIONS ON SERVICE SATISFACTION AND BEHAVIORAL INTENTION

INTRODUCTION

The discipline of marketing has a long tradition of incorporating emotions into causative explanations of behavior, for example, emotions have been shown to play an important role in explaining how advertising works and brands are developed (Hansen and Christensen 2007; Liljander and Bergenwall 2002). There is evidence that buying processes are influenced by a buyer's emotional state and the emotions evoked by the product being evaluated (Bloemer and de Ruyter 1999; Ladhari 2007a; Nyer 1997; Soscia 2007; White and Yu 2005; Yu and Dean 2001). Although importance has been attributed to emotions within a broad range of marketing theories, their role in understanding the antecedents of customer satisfaction remains relatively under-researched.

The consumer as a rational processor of information has been a dominant ontological perspective in consumer research deriving from neo-classical economics (e.g. Bettman et al. 1998; Sheth et al. 1991). This is reflected in practices of customer satisfaction research, with measurement instruments typically using items recording cognitive evaluations, rather than the emotions evoked by a service process (McFadden 1986). There has been increasing critical debate about the basis for this assumed rationality, with claims that consumers' evaluation processes are too complex to be modeled using observable, rational indicators (e.g. Hands 2010).

The dominance of cognitive models of customer satisfaction has been challenged by their apparent poor performance in predicting future behavioral intention (Bigné et al. 2008; Ladhari 2007a, 2007b; Phillips and Baumgartner 2002). Some of this poor predictive ability may be explained by situational factors, for example a satisfied buyer may no longer require a product, or a dissatisfied buyer may repurchase because the transaction costs of seeking an alternative may be perceived as too high (Brady and Cronin 2001; Cronin and Taylor 1992).

A more serious challenge to cognitive measures of customer satisfaction is that they fail to adequately capture the complexity of consumers' emotions.

The role of affect in satisfaction measurement has increasingly been recognized. Beginning with conceptual frameworks incorporating emotions, numerous studies have subsequently incorporated emotions into measures of service satisfaction (Mano and Oliver 1993; Oliver 1993). One significant stream of research has studied the emotional basis for satisfaction/dissatisfaction in the context of service failure and recovery (Boshoff 2012; Gabbott et al. 2011; Varela-Neira et al. 2008). There is increasing empirical evidence that emotions may better predict future behavioral intention than cognitive measures (Koenig-Lewis and Palmer 2008; White and Yu 2005; Zeelenberg and Pieters 2004). In the process of exploring the role of emotions in consumers' assessment of satisfaction, further questions are raised about the nature of the linkages, which this paper investigates.

The first significant omission in the current literature is the impact of affective expectations. There is now a long established literature on the role played by expectations in providing a benchmark against which service delivery is assessed (Parasuraman et al. 1985). However, disconfirmation approaches have predominantly taken a cognitive perspective, for example, the SERVQUAL approach which has been widely replicated and challenged, has used predominantly cognitive measures of expectations and perceptions of service quality (Parasuraman et al. 1988). Although the importance of affective expectations has been acknowledged in the buyer behavior literature (Bagozzi et al. 1998; Klaaren et al. 1994; Mason and Simmons 2012; Wilson et al. 1989), it has been noted that very little empirical research has been undertaken linking affective expectations and satisfaction (Ladhari 2007b; Mattila and Wirtz 2000; Phillips and Baumgartner 2002).

A second question arising is whether positive and negative emotions evoked during a service process are extremes on a bipolar continuum, or whether positive and negative emotions are separate constructs and structurally different in their effects. The literature on

buyer behavior and advertising response has recognized that positive and negative emotions may be quite distinct and evoke structurally different responses (Chaudhuri 1998; Holbrook and Batra 1987; Petzer et al. 2012). In the language of Herzberg, the evocation of some emotions may provide motivators, while other emotional states do not have the capacity to act as motivators, but their existence is a prerequisite condition (Herzberg et al. 1959; Swan and Combs 1976).

A third neglected research issue to be addressed in this paper is the role of timing in the assessment of emotions. Measures of satisfaction have traditionally been recorded at one point in time, although there is evidence that perceptions may change with the passage of time (O'Neill and Palmer 2004). Emotions are experienced before consumption, during consumption, and may subsist in memory long after consumption. White (2010, p. 391) has thus suggested that “more research is necessary to understand the impact of emotions over time ... Longitudinal studies that focus on actual customer behavior, as well as intentions, are needed to progress knowledge in this area.”

This paper seeks to contribute critical discussion about the role of expectations and anticipation in satisfaction measurement by incorporating anticipated emotions. A series of hypotheses relating anticipated and experienced emotions to satisfaction and behavioral intention are tested in the context of a relatively high involvement, hedonistic service encounter. The paper makes a methodological contribution by using longitudinal data rather than retrospectively collected data of emotions, and uses an actual service encounter rather than hypothetical scenarios which have limited many previous studies of emotions.

CONCEPTUAL BACKGROUND

Emotions, satisfaction, and behavioral intention

Although emotions have attracted interest as a basis for understanding the antecedents and outcomes of customer satisfaction (Bigné et al. 2005; Liljander and Strandvik 1997; Mazaheri et al. 2012; Oliver 1993; Phillips and Baumgartner 2002; Westbrook 1987), the concept of emotions is often poorly defined and delimited from the proximate constructs of affect and feelings. Of the three constructs, affect is the most abstract, comprising “a non-conscious experience of intensity, a moment of unformed and unstructured potential” (Shouse 2005). A feeling is a sensation that has been compared against previous experiences and is essentially personal and biographic, while an emotion is the projection and display of a feeling and may be constrained by social norms (Shouse 2005). This research focuses on emotions.

In operationalizing emotions as a behavioral response, researchers have distinguished between basic emotions and more complex secondary emotions (Ekman 1972; Izard 1971; Plutchik 1991). While basic emotions may be capable of observation by bodily reactions, this is more difficult for higher order secondary emotions, consequently their identification invariably relies on self-reporting and is subject to reporting distortion. Izard (1977) sought to combine basic emotions with complex secondary emotions by conceptualizing every emotion as being a combination of several basic emotions. This approach has been extensively replicated in consumer research (Liljander and Strandvik 1997; Oliver 1997; Westbrook 1987) and is used in this study.

Previous researchers have classified emotions into positive and negative emotions with a suggestion that they may represent distinct constructs rather than polar extremes of a single construct (Bagozzi et al. 1999b; Chaudhuri 1998; Phillips and Baumgartner 2002). Differential effects of positive and negative emotions have been noted in respect of response to advertising messages (e.g. Homer 2006), service failure (e.g. del Río-Lanza et al. 2009; Schoefer and Ennew 2005; Varela-Neira et al. 2008) and hedonic services (e.g. Lee et al. 2008; Palmer and Koenig-Lewis 2010).

A number of studies have investigated the impact of consumption emotions on behavioral intention (e.g., Bloemer and de Ruyter 1999; Ladhari 2007a; Nyer 1997; Soscia 2007; White and Yu 2005; Yu and Dean 2001). Affective elements of satisfaction are important for evoking word-of-mouth communications (Ladhari 2007a; Nyer 1997); influencing customer loyalty behaviors (Bigné et al. 2008; Bloemer and de Ruyter 1999; Jaiswal and Niraj 2011); and complaint behavior (Soscia 2007). It has been suggested that some emotions may be motivators but others act as necessary conditions. Swan and Coombs (1976, p. 26) noted that “consumers judge products on a limited set of attributes, some of which are relatively important in determining satisfaction, while others are not critical to consumer satisfaction but are related to dissatisfaction when performance on them is unsatisfactory”. The variables that cause, through their presence or absence, satisfaction or no-satisfaction, may be different to those that cause dissatisfaction or no-dissatisfaction.

Although the literature has suggested a distinction between cognition and affect, some authors have pointed to the theoretical and practical difficulties in distinguishing them. It has been questioned whether emotions can be formed without prior cognitive evaluation (Izard 1977; Zajonc 1980). Without cognition, is it possible to evoke emotions, and at what point does cognition become affect? Although an alternative view has been expressed that cognition is influenced by affect, from a practical perspective, the cognitive appraisal theory has a long tradition, with evidence that emotions are evoked by the evaluation of a specific event (Bagozzi et al. 1999a; Lazarus 1991; Nyer 1997). In this study, we have followed the cognitive appraisal theory by proposing that thinking about a forthcoming event and attending the event trigger emotional responses.

With regard to satisfaction, the literature has posited that satisfaction includes both cognitive (evaluative) and emotional dimensions (Cronin et al. 2000; Ladhari et al. 2008; Liljander and Strandvik 1997). Whilst Bagozzi et al. (1999a) argue that it is unclear whether satisfaction/ dissatisfaction is distinct from positive/ negative emotions, Oliver (2010)

suggests that emotions are evoked alongside various cognitive evaluations in producing satisfaction. This is consistent with the suggestion that two generic modes of cognitive function exist – intuition and reasoning. Following Kahneman, ‘System 1’ thinking relates to intuitive thoughts which come to mind effortlessly, quickly and automatically, while ‘System 2’ relates to reasoning which takes more time, is deliberate, intense and effortful (Kahneman 2003, 2011; Stanovich and West 2000). Similarly, Bagozzi (2006) proposes that consumers follow two modes of information processing – reflective/ deliberative and automatic/ preconscious. This suggests that the cognitive appraisal of a situation can evoke emotions quickly and effortlessly, i.e. automatically (System 1), while also leading to cognitive evaluations which take more time and effort, especially if the specific event is novel (i.e. System 2). Zajonc (1980) also proposes that emotions are responsible for shaping cognitive evaluations. This approach has been widely adapted in the literature (e.g. Ladhari et al. 2008; Lee et al. 2008; Mazaheri et al. 2012; Vinagre and Neves 2008).

Emotions, expectations and anticipation

The disconfirmation paradigm (Parasuraman et al. 1985) became a dominant model in the study of customer satisfaction. However, the validity of expectations as an evaluatory benchmark has been challenged. Conceptualizing expectations as a single value has been questioned, because a range of values may exist between *anticipated*, *desired*, and *ideal* expectations (Swan and Trawick 1981). It may be unrealistic to measure expectations in a context where a respondent has no mental framework for formulating expectations (Boulding et al. 1993; Zeithaml et al. 1993). In practice, many studies of expectations have used retrospective recall, which may be confounded by subsequent perceptions of performance (Boulding et al. 1993).

The role of prior emotional - as distinct from cognitive - expectations has been relatively under-researched (Phillips and Baumgartner 2002). Cognitive expectations are

based on functional attributes, and it has been noted that in the case of novel service encounters, functional expectations cannot be realistically envisaged, whereas the anticipated affective outcomes, such as happiness or excitement, by being more general, may be more easily conceptualized (Pham et al. 2001). Therefore, prospective buyers are more likely to rely on their feelings because these can be elicited immediately on exposure to a new stimulus (Pham et al. 2001). Among the limited research into affective expectations in the context of customer satisfaction, it has been shown that affective expectations influence satisfaction with healthcare providers (Jayanti 1998), movie theatres (Ladhari 2007b) and have an impact on students' assessment of their experience (Klaaren et al. 1994). Similarly, Wirtz, Mattila and Tan (2000) proposed that consumers' affective expectations of the consumption experience are influenced by situation-specific goals and the desired levels of arousal affect their subsequent satisfaction.

Appraisal theories provide a basis for understanding how affective expectations encompass consumers' predictions about how they will feel during and after consumption (Wilson et al. 1989). Many terms have been used to describe the concept of future emotions, including anticipated emotions (Perugini and Bagozzi 2001), anticipated future emotions (Hynie et al. 2006; Phillips and Baumgartner 2002), future affective experiences (Shields 2006), experiential expectations (Wilson and Gilbert 2003; Wilson et al. 1989), affective expectations (Klaaren et al. 1994; Philips and Noble 2007), and affective forecasts (Buehler et al. 2007). Researchers have distinguished between *expectations* and *anticipation*, with a suggestion that expectations are a passive benchmark against which performance is assessed, whereas anticipation may involve greater mental engagement in a service process (Koszegi 2010). Emotions evoked by anticipating an event may form part of the benefit/dis-benefit of the substantive event (for example joy associated with an anticipated vacation or fear associated with anticipation of hospital surgery).

Why is it important to gain a greater understanding of the role of affective anticipation for measuring satisfaction? One stream of research has suggested that by holding an affective forecast, an individual's likelihood of subsequently experiencing those emotions is increased (Baumgartner et al. 2008; Brown et al. 1997). The linkages between pre- and post-consumption affect were synthesized by Wilson and Klaaren (1992) in their Affective Expectations Model which proposed that consumers' predictions about how much pleasure they will get from a service encounter will influence how much the encounter is enjoyed. Baumgartner et al. (2008, p. 695) further noted that "Such a mental simulation might gladden us, and anticipated joy may lead to experienced joy. This joy about a future event is called 'Vorfrende' in German and 'voorpret' in Dutch (literally pre-joy), and it may be translated as pleasant anticipation."

A further stream of research has examined the role of expected emotions as motivators for goal directed-behavior. Bagozzi and his co-researchers (e.g., Bagozzi et al. 1998; Bagozzi et al. 2000; Perugini and Bagozzi 2001) have proposed a model of goal-directed behavior which extends the theories of planned behavior and reasoned action by including expected positive and negative emotions leading to behavioral desire which leads to behavioral intention. Zeelenberg (1999) noted that anticipated regret impacts on decision-making, leading to risk-avoiding as well as risk-seeking behaviors.

Affective expectations might explain why an individual re-interprets or selectively remembers an event (Klaaren et al. 1994), leading to post-consumption evaluations of satisfaction being influenced by affective expectations (Mattila and Wirtz 2000). Our knowledge of the linkages between anticipated and experienced emotions is limited by the scenario-based methodologies adopted in most of the research studies reported above. Cognitive disconfirmation models have often been tested using retrospective measures of expectations, which suffer because retrospective recall of expectations are confounded by experience (Boulding et al. 1993). Using simulations in which emotions only occur at a

limited number of points in time has been described as unrealistic, because emotions typically occur continuously during a service experience from pre-consumption to post-experience (Phillips and Baumgartner 2002).

CONCEPTUAL FRAMEWORK AND HYPOTHESES

The constructs which we focus on in this study - emotions, satisfaction and behavioral intention - and their proposed linkages are shown in our conceptual model in Figure 1. The first hypotheses replicate and validate associations found in previous studies within the context of a hedonic service experience. We then specify hypotheses relating to the focus of our contribution to knowledge – the relative importance of pre-consumption cognitive and affective appraisals on post-experience satisfaction and behavioral intention.

Our first set of hypotheses relate to the link between anticipated emotions and post-experience satisfaction. There is only limited empirical evidence of an effect of affective expectations on post-experience satisfaction, and we build on the studies of Ladhari (2007b) and Jayanti (1998) to hypothesize an effect. Furthermore, although the literature has suggested that positive and negative emotions may have differential effects on satisfaction and behavioral intention (Homer 2006; Varela-Neira et al. 2008; Yang and Namkung 2009), only a small number of studies adopt a longitudinal approach to assess the effects of emotions over time. Homburg et al. (2006) concluded that the impact of emotions decreased over time. In contrast, Koenig-Lewis and Palmer (2008) revealed that over time not only did emotions have a stronger effect on cognitive satisfaction, but they were also a better predictor of behavior. White (2010) found that over time, positive emotions remained a significant direct predictor of behavioral outcomes. However, neither positive nor negative emotions remained significant influences of cognitive satisfaction and negative emotions did not directly affect behavior. The findings in the literature are inconclusive and mainly assess the emotions evoked during and after a service experience. Mattila and Wirtz (2000) propose that post-

consumption evaluations of satisfaction are influenced by affective expectations. Thus we seek to contribute to knowledge by investigating to what extent emotions evoked before a service experience affect cognitive evaluations and whether positive and negative anticipated emotions have differential effects.

H1a: Anticipated positive emotions positively influence satisfaction post-event.

H1b: Anticipated negative emotions negatively influence satisfaction post-event.

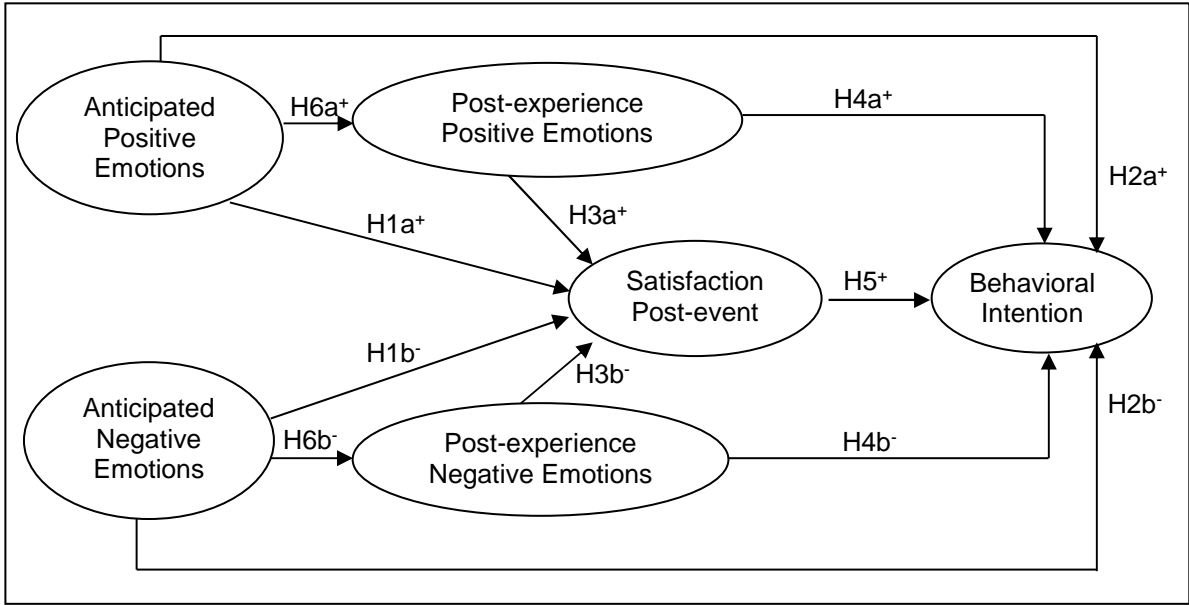


Figure I: The conceptual model

We extend the first set of hypotheses by testing the effects of anticipated emotions on behavioral intention. There is considerable support in the literature suggesting that anticipated emotions predict behavioral intention (Richard et al. 1996; Ravis et al. 2009; Wolff et al. 2011) and desires which is a strong antecedent of intention (Bagozzi et al. 2000; Perugini and Bagozzi 2001). A number of studies focus on specific negative anticipated emotions and their effects on behavior, e.g. in predicting the adoption or avoidance of pro-environmental behavior (Kaiser 2006; Kaiser et al. 2008; Kim et al. 2013; Zeelenberg 1999), however applications in hedonic services settings are scarce. Again, we explore possible differential effects of negative and positive emotions as proposed by Bagozzi et al (1999b).

H2a: Anticipated positive emotions positively influence behavioral intention.

H2b: Anticipated negative emotions negatively influence behavioral intention.

We repeat these two sets of hypotheses, but instead of looking at the effects of *anticipated* emotions, we consider the effects of *post-experience* emotions on satisfaction (H3) and on behavioral intention (H4). Direct links between post-experience emotions and satisfaction have been found in a variety of services contexts, such as dining (Ladhari et al. 2008), retail and shopping (Babin and Darden 1996); healthcare and hospital services (Vinagre and Neves 2008); education (Palmer and Koenig-Lewis 2011; Yu and Dean 2001) and festivals (Lee et al. 2008). The literature has also highlighted the differing effects of positive and negative emotions on satisfaction (Lee et al. 2008; Petzer et al. 2012; Vinagre and Neves 2008). A number of studies have established that emotions experienced during the service encounter directly influence behavioral intention (e.g. Finn 2012; Jaiswal and Niraj 2011; White and Yu 2005; Wong 2004).

H3a: Post-experience positive emotions positively influence satisfaction post-event.

H3b: Post-experience negative emotions negatively influence satisfaction post-event.

H4a: Post-experience positive emotions positively influence behavioral intention.

H4b: Post-experience negative emotions negatively influence behavioral intention.

We next seek to validate the effect of post-experience satisfaction on behavioral intention. The link between satisfaction in general and behavioral intention has found considerable support in many service settings, including the hotel, leisure and tourism sectors (Boulding et al. 1993; Ryu et al. 2008); restaurants (Ladhari et al. 2008), and festivals and events (Kim et al. 2010; Schofield and Thompson 2007). The preceding literature review has posited that satisfaction includes both cognitive (evaluative) and emotional dimensions (Cronin et al. 2000; Ladhari et al. 2008; Liljander and Strandvik 1997). However, the effects of emotions and cognition as distinct constructs are not conclusive from the literature. For example, Kim and Moon (2009) found that cognitive satisfaction with servicescape aspects had no direct effect on restaurant visitors' revisit intentions. Similarly, Brady and Cronin

(2001) concluded that cognitive satisfaction had no significant effect on behavioral intentions in their study across four service industries including dry cleaning, amusement, photograph development and fast-food. Others have found significant although not always strong links between these constructs (Ladhari 2009 ; Palmer and Koenig-Lewis 2010; Yu and Dean 2001). Hypothesis 5 seeks to gain more insight into the effects of cognitive satisfaction on behavioral intention within the specific context of a hedonic service encounter.

H5: Satisfaction post-event positively influences behavioral intention

Models of goal-directed behavior suggest that anticipated positive and negative emotions can trigger intentions to perform certain behaviors, increasing the likelihood of experiencing these emotions (Bagozzi et al. 1998; Baumgartner et al. 2008; Brown et al. 1997). There is little reported research evidence of anticipated emotions in service contexts, and even less which has sought to link anticipated emotions with consumers' post-experience emotional state. This as an important link in our conceptual framework which seeks to gain a better understanding of the effects on satisfaction and behavioral intention of emotions at different points in a consumer's "journey" through a service experience. We again distinguish between the effects of negative and positive emotions (Bagozzi et al. 1999b). In addition, our study makes a methodological contribution by using longitudinal data measuring emotions of an actual service encounter.

H6a: Anticipated positive emotions positively influence post-experience positive emotions.

H6b: Anticipated negative emotions negatively influence post-experience negative emotions.

METHOD

The research context

The hypotheses were tested in a context associated with high levels of positive and negative emotions and in a research environment where emotions can be linked to a unique event without excessive noise from other proximate events which might confound the results. After

considering a number of alternative research settings, the hypotheses were tested in the context of a UK university graduation ceremony.

A traditional British graduation ceremony is a distinctive event typically involving well-articulated and ritualized roles, celebrated with friends and family. It presents a major transition point for students, marking a formal and ceremonial end to their time at university before leaving the familiarity of their friends and surroundings for new careers (Rook 1985). A graduation ceremony can simultaneously evoke a range of positive and negative emotions (Larson et al. 2001), such as happiness of being together with friends and fear of going on stage in front of a large audience. From a utilitarian perspective, a degree can be formally awarded by the university sending documentation to the recipient, and therefore a graduation ceremony can be seen as an “unnecessary” hedonistic activity which fulfils graduates’ emotional needs. However, although affective evaluations may form an important part of attendees’ overall evaluation, they typically also evaluate functional aspects of the service, for example the quality of the venue and general organization of the event (Dhar and Wertenbroch 2000).

In some cultures, young people would have had experience of participating in numerous graduation-type ceremonies before they reach early adulthood, typically at high school and earlier. The hypotheses are tested in a UK context, where most people attending a university graduation ceremony at a typical age of 21 would have no previous experience, unless they had attended as a guest of a friend or sibling or are postgraduate students who have attended a graduation ceremony following their first degree. In this study, 76% of respondents stated that they had not previously participated in a graduation ceremony. The lack of previous experience meant that knowledge to underlie functional, cognitive expectations was limited.

However, participants could have anticipated emotions about the forthcoming ceremony. Satisfaction and emotions resulting from participation in a graduation ceremony can have a range of behavioral outcomes. The possibility of repeating the experience will be

limited to those students who participate in a further program of study. As a distinctive and identifiable event, participants in a graduation ceremony may recommend attendance at graduation ceremonies to friends who will graduate in the future. Cognitive and emotional outcomes of attendance may also influence an individual's decision to continue involvement with the university, for example through passive or active membership of an alumni association.

Exploratory qualitative research was undertaken with 10 graduates who had previously attended a UK graduation ceremony in the past 3 years. They were asked to recall their memories of the event in unstructured discussions. These were recorded and analyzed to identify recurring themes relating to cognitive and affective evaluations of the event reported. Among the positive emotions, participants noted their feelings of joy, excitement and pride, while negative emotions included annoyance and anger, for example in respect of lack of facilities at the venue and perceived high prices for supplementary items. Cognitive evaluations were recorded in respect of waiting time during the ceremony, general efficiency of the event and registration, and the length of the ceremony which many considered too long.

Procedure and Sample

A longitudinal, quantitative approach was adopted. Individuals who had registered to attend their graduation ceremony at a large UK university were contacted prior to the event and invited to take part in the study. In the first phase, undertaken online two weeks before the event, participants were asked about their expectations for the event, including questions about the emotions that they were currently feeling towards it. Participants had known for about three weeks the grades that they would be graduating with, therefore the effects of disconfirmation of grade expectations is unlikely to confound expectations and perceptions about the ceremony. The decision to take part in the event had already been made by the

respondents, thus the role of anticipated emotions in the decision-making process cannot be inferred from this research.

Participants were followed up one week after the event with an e-mail message inviting participation in a further online survey about their experiences of the event. A reminder e-mail was sent one week later. Of 2,649 graduates who attended their graduation ceremony, 493 (18.6%) took part in the first stage of the study and 304 (11.5%) completed the follow-up survey. Thus the answers of 62% of the respondents could be tracked over time. This is comparable to other longitudinal studies, which reported that between 58% and 70% of the original sample also completed the 2nd stage survey (Bolton and Drew 1991; Maxham III and Netemeyer 2002; Palmer and Koenig-Lewis 2011; Rindfleisch et al. 2008). The analysis was based on 304 respondents for stage 2. Those for which responses were missing at stage 1 were estimated using Maximum Likelihood Estimation (MLE). The sample was tested for bias and was found to be a fair representation of all graduating students. However, the sample mean age was slightly lower than for all graduating students (22.7 years compared to 25.2 years), possibly explained by younger graduates' greater propensity to read their student e-mails and to respond to online surveys and older graduates' greater likelihood of having other work and family commitments. There is also a slight underrepresentation of students who achieved lower degree classifications. Table 1 shows a summary of key sample characteristics.

Characteristic	Population (Participants of graduation) n=2,649 (demographic information available for n=2,543)	Stage 1 (2 weeks pre- experience) n=493 (demographic information available for n=461)	Stage 2 (1 week post- experience) n=304 (demographic information available for n=274)
<i>Gender</i>			
Male	40.9%	36.7%	36.9%
Female	59.1%	63.3%	63.1%
<i>Nationality</i>			
UK/EU	90.1%	93.7%	95.3%
Other	9.9%	6.3%	4.7%
<i>Degree awarded</i>			
First	12.0%	14.9%	18.8%
2.1	42.0%	53.0%	52.2%
2.2	28.9%	28.4%	25.7%
Third or Pass	17.1%	3.7%	3.3%

Table I: Sample and population characteristics

Measures

Numerous scales had been previously developed, tested and validated to measure the constructs that form the focus for this research - emotions, satisfaction, and behavioral intention. Initial qualitative research involving previous attendees of graduation ceremonies was used to refine the measurement scales.

Anticipated and experienced emotions

Unipolar and bipolar approaches have been used in previous studies to measure emotions. Mehrabian and Russell's model (1974) employs bipolar adjectives for emotional responses which fall into three basic dimensions: pleasure, arousal and dominance. However, bipolar approaches might be unsuitable for examining consumption experiences where positive and negative feelings are evoked simultaneously (Babin and Darden 1998; Westbrook 1987), a situation typical of a graduation ceremony where emotions of happiness and sadness may be evoked simultaneously. Therefore, a unipolar approach, based on Izard's (1977) Differential Emotions Scale (DES) and Richin's (1997) Consumption Emotion Set was adopted for this

study. These scales have been widely used to measure emotions evoked in service settings due to their flexibility and adaptability (Laros and Steenkamp 2005; Liljander and Strandvik 1997; Mano and Oliver 1993; Oliver 1997; Westbrook 1987). Gratitude, envy and annoyance were added as these emotions were expressed by recent graduates. The complete set of emotions comprised: happiness, joy, excitement, pride, gratitude, anger, shame, envy, fear, annoyance and sadness. Their order in the questionnaire was randomized. Exploratory factor analysis confirmed the existence of two dimensions of emotions – positive and negative, consistent with previous studies (Liljander and Strandvik 1997; Oliver 1994; Phillips and Baumgartner 2002). This study measured the degree/intensity of each emotion on a 5-point Likert scale from 1 (not felt at all) to 5 (very strongly felt) (e.g., Bagozzi et al. 1999a; Laros and Steenkamp 2005; Richins 1997).

Satisfaction

The literature suggested that cognitive evaluation of future events can be more difficult than affective evaluation and that unfamiliar objects elicit fewer associations than familiar objects (Söderland 2003). As the majority of respondents had not previously taken part in a graduation ceremony, satisfaction was only captured after the event, defined as a cognitive post-experience evaluation (Anderson et al. 1994).

A multi-item scale was developed based on a review of the limited literature on the subject which was specific to graduation ceremonies and further refined on the basis of preliminary qualitative research. In selecting items for this scale, care was taken to identify phenomena about which individuals typically make cognitive rather than affective appraisals, although it was noted in the literature review that many researchers have found difficulty in strictly distinguishing cognition from affect. As an example, we considered the registration process at the ceremony to involve essentially cognitive evaluations and having very little, if any affective consequence. The final scale included the following items: waiting times,

general organization, registration process, venue, staff attendance, and length of ceremony. These items were presented in random order on a 5-point Likert scale ranging from 1 (very dissatisfied) to 5 (very satisfied).

Behavioral intention

A number of possible behavioral outcomes are associated with attendance at a graduation ceremony. General questions were asked about respondents' likelihood of undertaking further studies at the university or recommending it to others. However, responses to these questions may have been confounded by satisfaction with the university over the previous years of attendance, rather than specifically with the graduation ceremony. To avoid these confounds, the analysis presented here is based on the likelihood of recommending attendance at a future graduation ceremony to a friend. There is considerable support for the use of personal recommendation as an important metric of loyalty resulting from satisfaction (Reichheld 2006). Behavioral intention was measured using a one-item 5-point scale ranging from 1 (very unlikely) to 5 (very likely).

RESULTS

Table II presents the means, standard deviations and paired samples t-test results for all constructs and items of our study. The mean for positive emotions significantly increases from 3.75 pre-graduation to 3.89 post-graduation ($t=2.97$, $p<.003$). Closer inspection of the separate emotions reveals that joy, pride and gratitude significantly intensify after the event. In contrast, for negative emotions similar levels of intensity are reported pre- and post-event.

Stage 1 (pre-experience)	Mean	Standard Deviation	Stage 2 (post-experience)	Mean	Standard Deviation	Paired Samples t-values	Sig.
1. Anticipated positive emotions	3.75	.67	Experienced positive emotions	3.89	.85	2.97	.003*
Happiness	4.02	.68	Happiness	4.09	.93	1.27	.205
Joy	3.74	.84	Joy	3.96	.97	3.88	.000*
Excitement	3.69	.84	Excitement	3.68	1.10	0.03	.974
Pride	4.07	.75	Pride	4.17	.97	2.00	.046*
Gratitude	3.25	.95	Gratitude	3.51	1.12	3.83	.000*
2. Anticipated negative emotions	1.34	.47	Experienced negative emotions	1.39	.74	1.10	.271
Anger	1.15	.38	Anger	1.23	.67	1.81	.071
Annoyance	1.53	.71	Annoyance	1.55	.97	0.35	.73
3.			Satisfaction	3.67	1.06		
			Waiting time	3.47	1.07		
			General organization	3.72	1.10		
			Registration process	3.88	1.06		
			Length of ceremony	3.63	.99		
4.			Behavioral Intention	4.56	.71		

Table II: Mean scores and standard deviations for constructs, emotions and satisfaction items,

The hypotheses were subsequently tested using Structural Equation Modeling using AMOS 19. The constructs of positive and negative emotions were allowed to co-vary as both emotions could be evoked by the event. As the model included longitudinal data, measurement error co-variances between stage 1 and stage 2 were also introduced for each of the variables where measures were taken over time (Hair et al. 2007).

The initial confirmatory factor analysis (CFA) was applied to assess construct reliability and validity. Goodness-of-fit indices, suggested that the proposed measurement model fitted the data well ($\chi^2=201.362$, $df=118$, $p\leq.000$). The chi-squared value divided by the degrees of freedom ratio for the measurement model was 1.706 and within the recommended range of 1 to 3 (Carmines and McIver 1981). The comparative fit index (CFI=.965), the incremental fit index (IFI=.966) and the Tucker-Lewis index (TLI=.950) were all above .9 and the RMSEA=0.048 was well below .08 (Bentler and Bonett 1980; Steiger 1989). Construct reliabilities (CR) ranged from .68 to .83, thus confirming adequate reliability as values above

.6 are usually considered sufficiently appropriate if other indicators of model fit are good (Bagozzi and Yi 1988; Hair et al. 2007). Convergent validity was supported since the estimated factor loadings for all indicators were significant ($p < .001$) (Anderson and Gerbing 1988). However, the following items were deleted due to low loading estimates (below .5): ‘staff attendance’ and ‘venue’ (from satisfaction scale); ‘shame’, ‘envy’, ‘sadness’ and ‘fear’ (from negative emotions scale). This suggests that negative emotions are more complex. Recent research has suggested that three significantly different sets of negative emotions may be evoked by a negative incident depending on who or what is the cause of the service problem (Petzer et al. 2012; Svaeri et al. 2011). The negative emotions of ‘anger’ and ‘annoyance’ which are retained in our research, can be classified as ‘external’ as they are most likely to be expected when the service provider is blamed for the incident (Oliver 1993; Svaeri et al. 2011). All final constructs have an average variance extracted of $\geq .5$ and are larger than the corresponding squared inter-construct correlation estimates thus confirming discriminant validity (Fornell and Larcker 1981). This confirms that positive and negative emotions (anticipated and experienced) are distinct constructs. Construct reliabilities, average variance extracted and inter-construct correlations are shown in Table III.

Construct	No of items	CR	1	2	3	4	5
1. Anticipated positive emotions	5	.83	.65				
2. Experienced positive emotions	5	.76	.79	.64			
3. Anticipated negative emotions	2	.68	-.51	-.45	.55		
4. Experienced negative emotions	2	.77	-.20	-.34	.45	.64	
5. Satisfaction	4	.81	.44	.43	-.54	-.48	.51

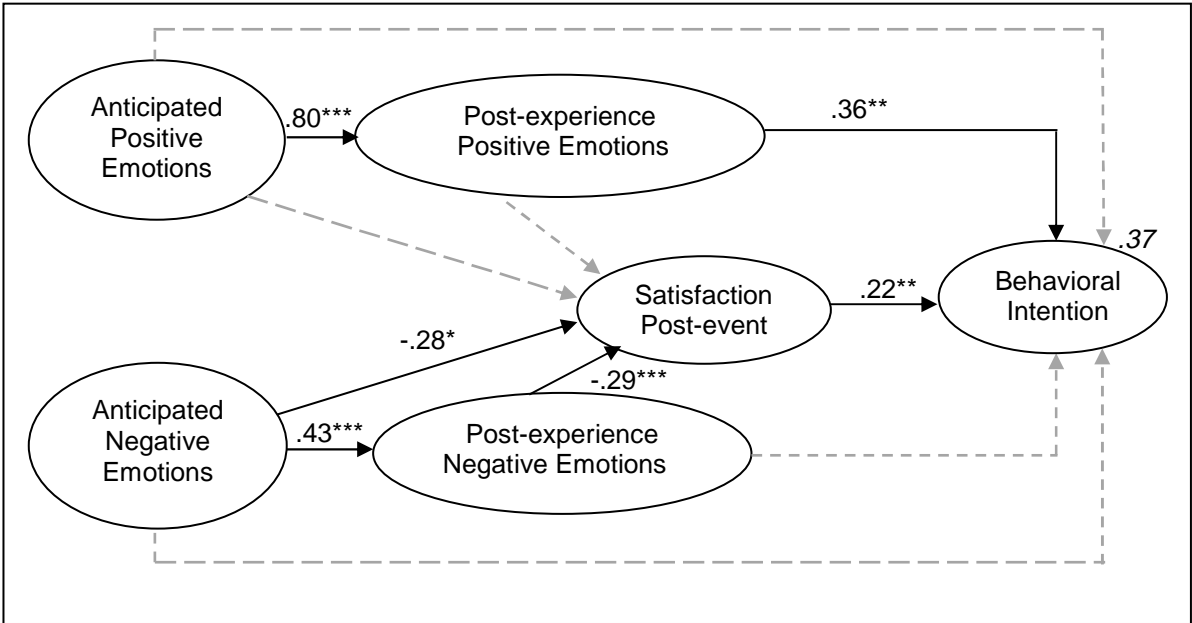
Note: Values in the diagonal represent the variance extracted

Table III: Construct reliabilities, average variance extracted and correlations among latent constructs

Figure II shows the results of the structural model estimation which achieved acceptable levels of fit ($\chi^2=220.142$, $df=133$; $p \leq .000$, $\chi^2/df=1.655$, $CFI=.965$, $IFI=.966$, $TLI=.950$,

RMSEA=.047). A summary of the findings with respect to the hypotheses tested is given below.

The first sets of hypotheses sought to validate the existence of an association between anticipated emotions and satisfaction/behavioral intention. Differential effects of positive and negative emotions emerged. We did not find evidence for H1a, as anticipated positive emotions had no effect on satisfaction. However, negative emotions had a significant negative effect on satisfaction, thus confirming H1b ($\beta=-.28, p\leq.05$). This is consistent with the findings of Liljander and Strandvik (1997) who in the context of a utilitarian service found that negative emotions have a stronger effect on satisfaction than positive emotions.



*Note: * $p\leq.05$, ** $p\leq.01$, *** $p\leq.001$, Dotted line denotes non-significant relationship*

Figure II: Standardized path estimates

In respect of behavioral intention, we found no direct effect of anticipated positive and negative emotions, thus rejecting H2a and H2b. Post-experience positive emotions had a significant positive effect on behavioral intention ($\beta=.36, p\leq.01$), thereby providing support for H3a. In contrast, H4a was rejected as post-experience positive emotions did not influence satisfaction post-event. H3b was supported as post-experience negative emotions had a

negative significant influence on satisfaction post-event ($\beta = -.29, p \leq .001$), however, post-experience negative emotions had no significant direct effect on behavioral intention, thus H4b could not be confirmed. The significant effect of post-experience positive emotions on behavioral intention and the insignificant direct effect of post-experience negative emotions are supported in the literature (Jang and Namkung 2009; Yu and Dean 2001). One reason suggested by Jang and Namkung (2009) is that respondents tend to avoid expressing negative feelings, even in self-reported measures.

This study goes further by showing that there were also indirect effects of anticipated emotions on behavioral intention mediated by satisfaction and post-experience emotions. Positive and negative emotions worked in structurally different ways. Anticipated positive emotions had an indirect effect mediated through post-experience positive emotions on behavioral intention, whilst anticipated negative emotions had an indirect effect mediated through post-experience negative emotions and satisfaction on behavioral intention. The mediated structural coefficients were stronger in the case of the path from anticipated positive emotions to behavioral intention than from anticipated negative emotions to behavioral intention.

The results of this study validate the positive significant link between satisfaction post-event and behavioral intention for our context ($\beta = .22, p \leq .01$), thus confirming H5. The results also show that post-experience positive emotions had a greater effect on behavioral intention than satisfaction ($\beta = .36, p \leq .01$ and $\beta = .22, p \leq .01$ respectively), thereby demonstrating the important role of emotions.

Furthermore, it was hypothesized that emotions evoked in anticipation of a service encounter have a direct positive effect on post-experience experienced emotions. Strong effects were found, for both positive and negative emotions, thus supporting H6a and H6b ($\beta = .80, p \leq .001$ and $\beta = .43, p \leq .001$). These findings are consistent with previous studies in the domain of consumer behavior (Klaaren et al. 1994; Phillips and Baumgartner 2002; Wilson

and Klaaren 1992; Wilson et al. 1989) which demonstrate that anticipated emotions influence experienced emotions. Furthermore, the effect of anticipated emotions on post experience emotions was greater in respect of anticipated positive emotions than for anticipated negative emotions. This confirms the results of Phillips and Baumgartner's (2002) scenario-based studies using relatively small student samples.

DISCUSSION AND CONCLUSIONS

This research has contributed to our knowledge of the linkages between emotions, satisfaction and behavioral intention. It has firstly confirmed the importance of affect in evaluations of satisfaction. Secondly, it has provided support for an association between pre-experience emotions and the emotions experienced after consumption. Thirdly, the study has expanded on previous research by identifying differential effects of negative and positive emotions on satisfaction and behavioral intention. Fourthly, the study has provided evidence based on a real life event within a longitudinal research framework, rather than a scenario or retrospective framework used in many previous studies. It has researched emotions associated with an event dominated by positive emotions. Previous studies of emotions in service encounters have tended to focus on environments with more pervasive negative emotions, and hypotheses have often been tested using an abstract scenario or recall of generic events.

It had been hypothesized that respondents' emotions before a service encounter would have an effect on their emotions after the encounter. There was strong support for this hypothesis, particularly in the case of positive emotions. An individual whose thoughts about the forthcoming service encounter evoked positive emotions was likely to come away from the service encounter with positive emotions. This study was not able to explore the bases on which individuals evoke specific emotions before the event. The nature of a graduation ceremony, in a UK context, meant that most respondents had not previously participated in this type of event, and therefore their anticipation of the service encounter would have been

derived through secondary sources, for example publicity material and talking with friends. An important management implication of this finding is the need to evoke positive feelings before an event, because this is associated with positive feelings after the event.

This study found that positive and negative emotions have different outcomes. Positive emotions evoked after the service encounter had a direct effect on behavioral intention, but no effect on satisfaction. By contrast, negative emotions had an effect on satisfaction but no direct effect on behavioral intention. This confirms the results of Liljander and Strandvik (1997) who found that negative emotions had a much stronger effect on satisfaction than positive emotions. Positive feelings evoked by the service encounter could be expected to directly motivate an individual to make further purchases/recommendations, whereas the negative feelings would not necessarily lead directly to non-purchase/non-recommendation.

A growing body of literature has suggested that cognitive measures of satisfaction are poorer predictors of behavioral intention than measures incorporating affect (e.g. Bagozzi et al. 1999a; Bigné et al. 2005; Bigné et al. 2008; Ladhari 2009; Palmer and Koenig-Lewis 2011; Smith and Bolton 2002; Wong 2004; Yu and Dean 2001). A strong direct effect was found from post-experience positive emotions to behavioral intention, but there was no direct effect of post-experience negative emotions on behavioral intention. However, negative emotions did have an effect on behavioral intention when mediated through satisfaction, but even in this case, the mediated effect was less than the direct effect of positive emotions.

One implication arising from this study is that customers with negative emotions prior to a service encounter may be predisposed to things going wrong during the encounter and are subsequently more likely to be dissatisfied. Loewenstein and Lerner (2003, p. 629) note that emotions are used to indicate which situations demand more attention and state that “Whereas happy feelings signal that ‘all is well’, negative feelings alert the body to the fact that a problem needs attention.” They base their statement on studies by Schwartz and Bless who suggested that negative emotions generate more systematic processing than positive

emotions (Schwarz 1990; Schwarz and Bless 1991). Positive emotions on the other hand, are more likely to lead to seeing an event favorably through ‘rose-tinted’ spectacles. This implies that emotional experience of an event is in the foreground of the respondent’s memory and will lead to behavioral intention regardless of the cognitive appraisals of the event, such as excessive waiting time.

The findings inform debate about the nature of the customer satisfaction construct. In this study, negative emotions appeared to be a significant component of (dis)satisfaction, and distinct from positive emotions which did not appear to be a component. One explanation is that satisfaction comprises phenomena that are assessed cognitively but do not have the power to evoke emotions over the longer term. It was noted that cognitive appraisals usually included in satisfaction studies may have little meaning in the pre-consumption phase where respondents have no prior experience and therefore are unable to realistically form standards against which cognitive appraisal of performance is assessed. This may be true for a graduation ceremony, where for most participants the ceremony would have been their first encounter with this type of service. However, participants were likely to have feelings about the forthcoming ceremony, such as excitement and fear.

In this study, satisfaction was measured with reference to the registration process, the general organization of the event, waiting time and the length of the ceremony. In the terminology of Herzberg’s model of motivation, these are largely “hygiene” factors. Waiting time, for example, is likely to be a dissatisfier if excessive time is spent waiting, but reduced waiting time is unlikely to be a motivator for future referral behavior. Such hygiene factors are unlikely to stand out in memory, and in the framework of the Gestalt school of thought, will become insignificant in memory recall as time passes by. This study has provided support for the notion that cognitive bases of satisfaction have only limited ability to induce positive behavioral intention. The construct of satisfaction had less effect on behavioral intention than positive emotions, which in this study was not linked to satisfaction.

The findings of this study offer a number of actionable management implications. One implication is that service design should aim to reinforce positive emotions throughout a service encounter, from initial anticipation through to post-consumption reflection. Cowley, Farrell, and Edwardson (2005, p. 1424) has described a process of “expectation assimilation” that may moderate any emotional dissonance. Affective assimilation may require marketing communications to be more specific in detailing emotional benefits of the service rather than, or in addition, to functional descriptions of the service process.

This study, together with previous studies, emphasize the importance of understanding emotions as a marketing tool and for incorporating measures of emotions in research instruments to assess satisfaction. Chaudhuri (2006, p. 29) noted that emotions are “permanent, fast, catchy and memorable” and that “cognitive defenses are lowered by emotional treatments”. Affect is the first level of response which directs subsequent behavior and cognitive processing (Ray and Batra 1983). Zajonc (1980) stated that an individual has little control over emotions once evoked and therefore in order to influence behavior, firms should aim to change affective states rather than only working on cognition.

Previous research has linked emotions evoked after consumption with satisfaction and behavioral intention. This study makes a further contribution by identifying significant effects on satisfaction and behavioral intention of emotions felt *before* consumption.

LIMITATIONS AND FURTHER RESEARCH AVENUES

This study has a number of limitations. It focused on a high involvement service encounter in which positive emotions typically dominate over negative emotions. Furthermore, due to the complex nature of negative emotions, the conclusions presented in our study are specific to the ‘external’ negative emotions of anger and annoyance, which are pertinent from a service provider’s view. Further replication studies of the structure of positive and negative emotions and their effects would be useful in a context dominated by

negative emotions, for example some aspects of healthcare. Studies could also explore how these different dimensions of negative emotions change over time.

The study only measured affect at two points, and further research could investigate in more detail the transition of affect over time, and whether there are key events which trigger transition. The decision to take part in the event had already been made by respondents. Thus the scope of this study did not allow investigation of the motivations underlying respondents' reasons for attending a graduation ceremony, and the extent and nature of linkages between goal-directed motivation and subsequent affect.

The research context was chosen in order to reduce the effects of previous experience on anticipation, but more remains to be researched on the generalizability of affective anticipation and the specific sources on which it is based in contexts of no direct prior experience. One source of anticipated emotions is recollection of emotional reactions to previous comparable situations, but more research is needed to understand what situations are regarded as comparable, and the basis on which affective generalization is made. It would thus be valuable to replicate this study in different service settings, i.e. repeat purchase service settings, where respondents have some experience about the service and are also likely to re-use it.

In common with much research on emotions, there remains a problem of distinguishing between cognition and affect. Emotions imply at least some cognitive processing and although this study has sought to distinguish emotions from more rational, cognitive evaluations of satisfaction, the possibility of the two constructs being conflated remains. In addition, the use of self-reported measures may lead to an over-reporting of emotions.

A more significant question not addressed in this study is the effect of individual differences in personality on the link between anticipated and experienced emotions. While the literature has discussed personality types in terms of different types of emotional disposition, further research is required to investigate how this might influence affective

anticipation and the subsequent affective evaluation of an event, and whether, for example, some people are predisposed to overestimate future emotional reactions.

Another avenue for further research is to build on Herzberg's (1959) theory of motivation and his distinction between "hygiene" and "motivating" factors. There may be elements of satisfaction and emotions which act as motivators, while other elements need to be present in a service encounter, and their absence evokes negative emotions/dissatisfaction.

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