EXAMINING THE QUALITY ANTECEDENTS AND MODERATING EFFECTS

OF EXPERIENTIAL VALUE IN A MEGA EVENT

ABSTRACT

This study aims to explore (1) the underlying dimensions of experiential value (EV), (2) the quality antecedents of EV, and (3) the moderating effects of EV on the relationships between Expo quality dimensions and visitor satisfaction. Although gaining event experience is a crucial reason why event-goers visit certain events, EV has yet to be fully investigated in the previous event literature. The current study offers an expanded view of event consumption experience from the EV perspective, thus contributing to the event literature, particularly in investigating the unexplored aspect of event-goer behavior. The theoretical and practical implications of the findings are also discussed.

KEYWORDS: Event quality; event-goer behavior; experiential value; Expo; mega event

INTRODUCTION

The significance of customer value is well represented in the hospitality/tourism and marketing literature and continues to garner research interest in the academe and the industry. The concept of perceived value has become more diverse, ranging from unidimensional to multidimensional values. The unidimensional approach concerns the economic and functional aspect of value (e.g., Monroe, 1990; Zeithaml, 1988), whereas mulitidimensional value embraces hedonic/emotional dimensions as well as functional ones (e.g., Holbrook, 1994; Mathwick, Malhotra, & Rigdon, 2001, 2002; Woodall, 2003). Based on the multifaceted notion of perceived value, the growing number of research explores the role of multidimensional value in the

hospitality and tourism industries (e.g., Gursoy, Spangenberg, & Rutherford, 2006; Sánchez, Callarisa, Rodríguez, & Moliner, 2006; Williams & Soutar, 2009).

The said research stream is also observed in the event literature. For instance, drawing upon the multidimensional value developed by Petrick (2002), who criticizes unidimensional measures of value for assuming that visitors hold a shared meaning of value, Lee, Petrick, and Crompton (2007) adopt multidimensional value to predict festival visitor satisfaction and behavioral intentions. Also, Lee, Lee, and Choi (2011) explore the differential effects of festival quality on functional and emotional values that have different impacts on satisfaction and behavioral intentions. In another work, Lee and Min (2013) study the causes of the distinction between low and high perceived multidimensional value at academic conventions. These prior studies contribute to improving the understanding of the antecedents and consequences of multidimensional value from the perspective of event visitors. To further examine the unexplored aspect of multidimensional value in the event literature, this study builds on the concept of experiential value (EV). Event experience is considered a major benefit or core event product that visitors desire to gain in order to satisfy their motivations (Getz, 1989, 2008). Event experience is central to the creation of existential authenticity, which is the outcome of the commodification process and experience-based authenticity valued by event-goers (Kim & Jamal, 2007). Despite the significant role of event experience, the extant literature pays scant attention to an examination of theories associated with experience. Given that experience itself offers high value, EV reflects extrinsic and intrinsic benefits associated with direct experience and/or distanced enjoyment of products/services (Mathwick, Malhotra, & Rigdon, 2001). EV is therefore considered instrumental in understanding event-goer perceptions of value associated with experience.

To address the aforementioned issue, this study is to investigate the role of EV in event consumption experience. Specifically, the current study examines a mega event, Expo 2012-Yeosu, Korea, to identify the following: (1) the underlying dimensions of EV, (2) the quality antecedents of EV (Figure 1), and (3) the moderating effects of EV on the relationships between Expo quality dimensions and visitor satisfaction (Figure 2) from the viewpoint of low- vs. high-tiered EV visitors (i.e., visitors perceiving low EV vs. high EV). This approach allows event operators to explore the role of EV in event-goer behavior. Furthermore, investigating the differences in the way low- and high-tiered EV visitors view event quality provides insights into what causes visitors to perceive less or more EV. These findings are expected to offer richer implications to both academics and industry professionals.

Insert Figures 1 and 2 here

THE LITERATURE REVIEW

The Research Stream of Perceived Value

The initially dominant concept of perceived value is viewed as unidimensional value in which utilitarian notion is adopted to judge the benefits and costs (Sánchez-Fernádez & Iniesta-Bonillo, 2007). Based on utilitarian perspective, quality-price relationship is analyzed (Dodds & Monroe, 1985; Monroe & Chapman, 1987) and gives rise to the initial concept of value as "cognitive trade-off between perceptions of quality and sacrifice" (Dodds, Monroe, & Grewal, 1991, p. 308). In quality-price relationship, these two constructs act as antecedents of value rather than as formative concepts of value in line with the economic and utility theory (Sánchez-Fernádez & Iniesta-Bonillo, 2007). Zeithaml (1988) adopts means-end theory to extend quality and price-based value and conceptualizes value as (1) low price, (2) the quality for the price paid, (3) whatever individuals seek from products/services, and (4) what consumers get for what they

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give. This leads to the definition of value as trade-off between 'get' (what is received) and 'give' (what is sacrificed). Similarly, Cronin, Brady, Brand, Hightower, and Shemwell (1997) contend that value is judged by either a multiplicative function of benefit and sacrifice or an additive function of the two constructs. In the multiplicative function, value is interpreted as a ratio of benefit (numerator) and sacrifice (denominator). Although this model is supported by the prior literature (Dodds et al., 1991; Zeithaml, 1988), it fails to explain findings from previous research by Evans (1991) and Thaler (1985). Instead, the additive function is considered more reliable model for value given that it reflects integrative aspect of benefit and sacrifice through the compensatory trade-off between the two variables (Cronin et al., 1997). Other scholars, however, state that the unidimensional view is too narrow and unable to reflect the complicated, multifaceted aspect of value (Holbrook, 1994, 1999; Mathwick et al., 2001, 2002; Sinha & DeSarbo, 1998; Sweeney & Soutar, 2001). This means that the simple trade-off between price and utility does not embrace various concepts, including perceived benefits, quality, sacrifice, price, and emotion. Thus, value is perceived as multidimensional construct that comprises interrelated dimensions, representing the holistic concept of a complicated phenomenon (Holbrook, 1994, 1999; Sweeney & Soutar, 2001; William & Soutar, 2000).

In the research stream of multidimensional value, the hedonic perspective of value is analyzed in conjunction with utilitarian concept. Hedonic and utilitarian values are used to develop a value scale for shopping experience (Babin, Darden, & Griffin, 1994). Hedonic value concerns entertaining, emotional, experiential, and affective aspects of shopping, whereas utilitarian value is signified by functional, instrumental, and cognitive features in shopping experience. Hartman (1967, 1973) conceptualizes the structure of multidimensional value wherein extrinsic, intrinsic, and systemic values coexist in value realm. The extrinsic value

represents the utilitarian aspect of value while the intrinsic value exhibits hedonic nature. The systemic value reflects the logical feature of relationships, such as the relationship between sacrifices and benefits. The concept of multidimensional value is further extended in the theory of consumption value, wherein value is conceptualized as functional, emotional, social, epistemic, and conditional values (Sheth, Newman, & Gross, 1991). Functional and emotional values refer to utilitarian and hedonic values, respectively. Social value reflects an image congruent with the social image individuals desire to create. Epistemic value is related to a desire for knowledge, such as novelty seeking and intellectual curiosity. Conditional value refers to consumption behavior contingent on particular situations or events (e.g., Christmas) on the part of consumers. These forms of value are fundamental to the subsequent value studies (e.g., Sweeney, Soutar, Whiteley, & Johnson, 1996; Sweeney & Soutar, 2001; Wang, Lo, Chi, & Yang, 2004) in which epistemic and conditional values are not identified. In the theory of consumption value, Sheth et al. (1991) elaborate on the importance of multidimensional value in a way that (1) market choice is contingent on the multiple types of value, (2) the types of value differently affect consumption behavior, and (3) these dimensions of value are unrelated.

Experiential Value (EV)

EV builds upon Holbrook's (1994, 1999) typology of multidimensional value, which is based on three dichotomies, namely, (1) extrinsic vs. intrinsic, (2) active vs. reactive, and (3) self-oriented vs. other-oriented (Table1). First, extrinsic value is functional in nature and is derived from a consumption experience to achieve some particular objectives, such as an errand or a type of work. By contrast, intrinsic value represents an experience for its own sake as an end in itself, such as fun and playfulness (Babin & Darden, 1995; Batra & Ahtola, 1991). Second, Holbrook (1994) contends that active value arises from the active manipulation of a

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product/service by its users. For the creation of active value, consumers exert collaboration or manipulation over objects, experiences or business entities, thereby acting as co-producers of value (Gummesson, 1998). Consumer collaboration is viewed as a prerequisite for the playful consumption experience (Deighton & Grayson, 1995). In relation to this, collaboration is viewed as an effective way by which to attract consumers and also involves cognitive, behavioral, or financial investments by the consumers (Mathwick et al., 2001, 2002). However, reactive value results from the appreciation and comprehension of the consumption experience or an object, in which case the object influences consumers rather than vice versa (Holbrook, 1994). Third, self-oriented value refers to the consumption of an object for one's own sake; by contrast, other-oriented value occurs when consumption experience is obtained for the sake of others or is affected by how others respond. These three dichotomies generate eight types of value in Table1, all of which coexist to varying degrees in the consumption experience (Holbrook, 1994).

*** Insert Table1 here***

Building upon Holbrook's typology of perceived value without other-oriented value (because EV concerns "for one's own sake"), Mathwick et al. (2001) conceptualize and develop the measures of EV comprising four dimensions as follows: consumer return on investment (ROI), service excellence, aesthetics, and playfulness (Table2). Referring to the financial, behavioral, and psychological investments on the part of consumers, consumer ROI is represented by the sub-dimensions of efficiency and economic value. However, the current study adopts economic value (e.g., value for money) only because measures of efficiency (e.g., "Attending the Expo makes my life easier") do not fit into the context of event experience. Derived from the source of reactive-extrinsic combination, service excellence is reflected in the

appreciation of consumption experience. According to Oliver (1999), this dimension can be used as a standard against which event experience is evaluated.

__Insert Table2 here__

In the literature, aesthetics is operationalized as the sub-dimensions of visual appeal and entertainment to express consumers' admiration of aesthetic and emotion-evoking components. Signified by escapism and enjoyment, playfulness value is created through the intrinsic enjoyment of experience and deviation from daily routine life (Day, 1981; Huizinga, 1955). This study posits that aesthetics and playfulness are dimensions relevant to Expo 2012, wherein visitors enjoy four thematic facilities, including the Big-O, the Expo Digital Gallery, the Sky Tower, and the Aquarium (Marine Life Pavilion). For example, located in a sea area 203 times larger than a soccer stadium, the Big-O features the largest over-the-sea fountain in the world, with a 40 m-high O-shaped structure that offers a spectacular multimedia show. The Expo Digital Gallery showcases digital technology and art in a 218 m-long and 30 m-wide LED screen. Lifelike digital images of a whale and creatures designed by visitors swim and move across the gallery. The Sky Tower is listed in the Guinness Book of World Records for having the loudest pipe organ in the world. Apart from this, there is an observation deck on the rooftop of the Sky Tower, which gives visitors an expansive view of the entire Expo site (250,000 m^2). Meanwhile, staged in a 6,000-ton water tank, the Marine Life Pavilion accommodates endangered marine creatures, including white whales, Baikal seals, and sea dragons (Organizing Committee of Expo 2012, 2012). The series of Expo 2012 programs allow visitors to stimulate the values of visual appeal, entertainment, enjoyment, and escapism. Consistent with the typology of EV without efficiency (i.e., economic value, escapism, enjoyment, excellence, visual appeal, and entertainment) by Mathwick et al. (2001), the current study undertakes an exploratory approach

to identifying what EV dimensions are observed and confirmed within the context of event experience.

Event Quality, EV, and Satisfaction

Perceived quality is conceptualized as a consumer's assessment of the overall excellence or superiority of an object (product/service) (Zeithaml, 1988) and is developed in such a way that a specific attitude is formed towards that object (Bitner, 1990). Quality judgment is affected by the appraisal of attributes individuals associate with a product/service (Dodds et al., 1991). In the tourism literature, quality is also appraised by the performance of quality attributes under the primary control of a tourism provider (Baker & Crompton, 2000). However, the concept of quality is very rarely addressed in the event literature, whereas visitor motivations are explored substantially. Gaining a better understanding of visitor motivations (e.g., cultural exploration, novelty, and socialization) is a key to creating and ensuring visitor satisfaction (Nicholson & Pearce, 2001). At the same time, indentifying the event quality attributes and its underlying dimensions is comparably critical to enhancing visitor satisfaction and behavioral intentions. This is because quality serves as an antecedent of value, satisfaction, and behavioral intentions in numerous existing research.

Only a handful of studies explore the concept of event quality in the context of festivals. For instance, in an effort to verify a valid method for assessing quality, Crompton and Love (1995) propose the use of festival quality attributes, most of which are categorized as six dimensions as follows: (1) informational service (e.g., information booth and street map), (2) local environment (e.g., safety), (3) program quality (e.g., entertainers and indoor performance), (4) adequacy of facilities (e.g., rest areas and restrooms), (5) food and beverages (F&B), and (6)

merchandise. They conclude that performance-based operationalization is the most reliable method for evaluating quality. In contrast, disconfirmation-based operationalization is not found to be a convincing way of assessing quality. Drawing upon the abovementioned quality attributes, Baker and Crompton (2000) measure festival quality using the second order of four factors consisting of generic features (festival characteristics), entertainment programs, informational service, and comfort amenities (F&B, merchandise). The findings of their study indicate that visitor satisfaction and behavioral intentions are significantly enhanced when visitors rate festival quality highly. Quality is assessed through the performance of event attributes under the control of event organizers (Crompton & Love, 1995). In other words, visitors evaluate quality based on their perception of the performance of event attributes. Therefore, event quality is considerably affected by how visitors view and react to event attributes (Crompton, 2003).

Later, Crompton (2003) categorizes event quality attributes as satisfiers and dissatisfiers according to the two-factor theory of Herzberg, Mausner, and Snyderman (1959). Event quality attributes classified as satisfiers literally make visitors satisfied when carried out to satisfy socio-psychological motives (exploration, novelty, and social interaction) but evoke dissatisfaction when they are perceived as low quality. Crompton (2003) classifies event quality attributes, including the quality of programs (entertainers, parades, and indoor performance) and visual attractions (visual appearance, lighting, and Christmas trees), as satisfiers. However, attributes classified as dissatisfiers are seen as a basic set of conditions (taken for granted) for an event. Thus, visitors are not satisfied even when they observe a high quality of dissatisfiers, but dissatisfaction occurs when dissatisfiers are of low quality. Crompton (2003) finds that physical and tangible attributes (e.g., restrooms, parking, informational service, F&B, and merchandise) are taken for granted and treated as dissatisfiers.

Yoon, Lee, and Lee (2010) investigate the structural relationships among festival quality, value, satisfaction and loyalty, in which festival quality is operationalized as five dimensions as follows: informational service, program, facilities, souvenirs, and food. Except informational service, all other factors predict visitor value, which, in turn, positively affects visitor satisfaction and loyalty. Based on the similar quality dimensions (program, informational service, F&B and merchandise, facilities, and natural environment), Lee, Lee, and Choi (2011) explore the effect of festival quality on functional and emotional value. Among quality factors, program quality acts as the strongest antecedent of emotional and functional values, given that event programs are instrumental in satisfying visitor motivations, such as novelty or uniqueness, social interaction, escape, and cultural exploration. Although aforementioned quality dimensions are addressed within the festival context, these factors concern Expo quality because they are important logistics and components present in the Expo. Therefore, the festival literature concerned is a reliable source and reference for identifying and developing Expo quality attributes in this study. Quality serves as a positive antecedent of value and satisfaction in the literature (e.g., Baker & Crompton, 2000; McCleary, Weaver, & Hsu, 2006; Petrick, 2004). An identification of underlying Expo quality dimensions therefore enables this study to identify quality antecedents of EV and explore the moderating effects of EV on the relationships between Expo quality dimensions and visitor satisfaction from the differential views of low- vs. high-tiered EV visitors. Consistent with the aforementioned literature, this study postulates that those visitors who experience Expo quality attributes positively are likely to end up with favorable EV.

H1: Confirmed underlying dimensions of Expo quality affect EV positively.

Perceived value is defined in previous studies as a concept that predicts satisfaction and behavioral intentions (e.g., Cronin, Brady, & Hult, 2000; Oh, 2000; Yoon, Lee, & Lee, 2009).

The positive causal relationship between value and satisfaction is reported in the event literature (e.g., Yoon et al., 2009). Wang et al. (2004) contend that multidimensional value (functional and emotional values) positively predicts satisfaction, given that the cognition-oriented construct of value precedes the affective construct of satisfaction (Bagozzi, 1992; Oliver, 1997). Value is conceptualized as a cognitive construct in a way that involves more cognition in judging value (Patterson and Spreng, 1997). On the other hand, satisfaction, defined as "the summary psychological state resulting when the emotion surrounding disconfirmed expectations is coupled with the consumer's prior feelings about the consumption experience" (Oliver, 1981, p. 27), is considered an affective construct (Oliver, 1997). According to attribution theory (Weiner, 2000), individuals exercise cognition/thinking to begin attributional search as to why they feel great. This implies that visitors search for causes (e.g., high value) of favorable emotional response (e.g., satisfaction), supporting the sequence of cognitive construct (EV) leading to affective construct (visitor satisfaction). For the moderating role of EV, those visitors (i.e., high EV group) who perceive higher EV are presumed to hold more positive relationships between Expo quality dimensions and visitor satisfaction than those visitors (i.e., low EV group) experiencing lower EV in that high EV is reflective of more favorable assessment of quality and satisfaction than low EV. Therefore, this study posits that:

H2: EV affects visitor satisfaction positively.

H3: The relationships between Expo quality dimensions and visitor satisfaction are more positive for high EV group than low EV group.

METHODOLOGY

Data Collection and Measures

Hosted by Yeosu, Korea, from May 12 to August 12, 2012, Expo 2012 was the first in Expo history to commit to the protection of the marine environment and ocean waters, with the theme "The Living Ocean and Coast." Expo 2012 drew about 8.2 million visitors from 104 countries, created 79,000 employees, and had an economic effect of USD 11.09 billion; it also featured various exhibitions as well as cultural and academic programs (Song & Park, 2012).

An on-site survey was undertaken at Expo 2012 in Yeosu, Korea for a month. To ensure that respondents experienced the Expo completely, the survey was conducted at late afternoon. Trained field researchers approached every fifth visitor near the exit gates for a survey. A total of 536 survey forms were initially collected, but due to incomplete answers in 34 questionnaires, the number was reduced to 502 valid samples for data analysis. The respondents were also asked to release their demographic information. The gender ratio of the participants was 47% (male) and 53% (female). The monthly household incomes ranged from below USD 2,000 (27.9%), between USD 2,001–4,000 (39.4%) to USD 4,001–6,000 (25.7%), and over USD 6,001 (5.2%). The participants had the following educational profiles: high school graduates (46.5%), bachelor's degree holders (50%), and master's degree holders (2.6%). The age groups of the participants were as follows: below 20 years (15.3%), 20–29 years (26.7%), 30–39 years (24.9%), 40–49 years (21.1%) and over 50 years (11.5%).

For this study, EV was measured based on a subset of scales developed by Mathwick et al. (2001). Measures for visitor satisfaction were adapted from Oliver (1997). The quality attributes of F&B, merchandise, program quality, and informational service were derived from the literature of Baker and Crompton (2000), Crompton (2003), Crompton and Love (1995), Lee et al. (2011), and Yoon et al. (2010). The items of site environment built on the studies of

Crompton and Love (1995) and Lee et al. (2011). The scales of extra-Expo opportunity were based on the literature of Oppermann and Chon (1997). An initial pool of 49 items was generated to capture the quality of the Expo after a literature review, in-depth interviews, focus groups, a review by expert panel, and a pretest. However, given that three items highly overlapped with an EV dimension (i.e., visual appeal), the final number of items adopted as Expo quality attributes was 46.

The guidelines by Churchill (1979) and DeVellis (1991) were used as reference to identify the quality attributes of Expo 2012. First, event literature was thoroughly reviewed to identify quality attributes (e.g., Baker & Crompton, 2000; Crompton, 2003; Crompton & Love, 1995; Yoon et al., 2010; Lee et al., 2011), after which measures were adapted to reflect the context of the Expo. Second, a series of in-depth interviews was undertaken with two event scholars and three senior Expo operators to enhance translation validity, including face and content validity. This process was followed to fine-tune the items derived from the literature review. The interviews were transcribed to examine the items and identify their dimensions. Third, focus group discussions were conducted with three groups, each of which consisted of five Expo operators. Feedback data obtained from the in-depth interviews and focus groups were helpful to find irrelevant items or include additional items. Fourth, an expert panel (event scholars and senior Expo operators) reviewed the generated items. Members of the panel were asked to comment on the clarity, conciseness, and relevance of the items and to express their concerns and suggestions over measures. Fifth, five trained graduate students pretested a questionnaire through a personal interview with 65 Expo visitors. Items were mixed to minimize halo effects. The interviewers asked visitors to answer each question and explain their answer to verify the instructions and the scale as well as to identify any concerns regarding the survey.

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Subsequently, the wording and clarity of 46 items were refined to finalize the questionnaire. Each item was operationalized on a five-point Likert-type scale with an anchor of 1=strongly disagree and 5=strongly agree.

RESULTS

Exploratory Factor Analysis for EV and Expo Quality

Using principal axis factoring and oblique rotation, exploratory factor analysis (EFA) was adopted to identify underlying factors and items for the final factor solution. Items with factor loadings below 0.4 and communalities less than 0.5 were deleted. Factors with eigenvalues less than 1 were not selected, and a scree plot was reviewed for a visible elbow in order to determine the number of factors derived. After the items of EV were reviewed, four underlying dimensions (economic value, visual appeal, escapism, and excellence) were found, whereas two other dimensions (entertainment and enjoyment) were not observed in the context of Expo 2012 (Table3). Explaining 61.46% of variance in the data, all dimensions showed an acceptable level of reliability (Nunnally, 1978). Expo quality was found to have a nine-factor structure comprised of: F&B and merchandise; exhibit program; staff service; admission experience; informational service; entertainment program; adequacy of facilities; site environment; and extra-Expo opportunities (Table 4). The nine-factor structure accounts for 62.81% of variance with acceptable reliability.

Insert Table 3 and 4 here

Testing for the Conceptual Model 1

Based on the underlying dimensions of EV and Expo quality, conceptual model 1 was established with nine quality factors, visitor satisfaction, and EV comprised of second-order factor of four dimensions (Figure 3). Confirmatory factor analysis (CFA) was conducted to confirm the underlying dimensions identified from EFA and test the validity of measurement model (Table 5). Goodness-of-fit indices ($\chi 2$=2,388.32, df=1,266, RMSEA=0.04, CFI=0.92, NNFI=0.91) suggest that the proposed measurement model fits the data well. Convergent validity (Table 5) was supported by average variance extracted (AVE) values above 0.5 (Fornell & Larcker, 1981). Factor loadings also showed the acceptable level of convergent validity because all loadings in Table 5 were significant at p<0.05 (Anderson & Gerbing, 1988). Furthermore, the AVE for each construct was higher than the squared correlation coefficients under corresponding inter-constructs (Table 5 and 6), thereby showing discriminant validity (Fornell & Larcker, 1981).

Insert Table 5 and 6 here

Structural equation modeling (SEM) was conducted to identify which quality dimensions are positively related to EV. According to goodness-of-fit indices ($\chi 2$=2,428.70, df=1,275, RMSEA=0.04, CFI=0.92, NNFI=0.91), a proposed structural model was found to fit the data as well. SEM results indicate that the following five quality dimensions are positively related to EV: exhibit program (γ_{12} = 0.38, t = 5.26); admission experience (γ_{14} = 0.20, t = 3.19); entertainment program (γ_{16} = 0.17, t = 2.34); site environment (γ_{18} = 0.14, t = 2.10); and extra-Expo opportunities (γ_{19} = 0.29, t = 3.50). Therefore, the five quality factors were found to serve as quality antecedents of EV, partially supporting H1. EV was operationalized as a second-order factor of four dimensions. According to factor loading value, excellence (0.78) accounts for EV

the most, followed by escapism (0.73), economic value (0.64), and visual appeal (0.47).

Additionally, EV (β_{21} = 0.72, t = 7.74) predicted visitor satisfaction strongly.

<div align="center">***Insert Figure 3 here***</div>

Testing for the Conceptual Model 2: The Moderating Role of EV
Testing for measurement invariance between low and high EV groups

Respondents were split into low (N = 239) and high (N =230) EV groups, based on a

median value, while 33 respondents on the median value were excluded in data analysis. A

measurement invariance test is necessary to assess whether the measurement model was

equivalent between the two groups, given that the same measures were adopted for both groups.

Measurement invariance represents "whether or not, under different conditions of observing and

studying phenomena, measurement operations yield measures of the same attribute" (Horn &

McArdle, 1992, p. 117). If the evidence does not support measurement invariance, findings

based on measures are uncertain at best and misleading at worst (Steenkamp & Baumgartner,

1998).

Table 7 presents a non-restricted measurement model and a full metric invariance model

across the two groups. Full metric invariance was supported because the chi-square difference

between the non-restricted measurement model and the full metric invariance model was not

significant ($\Delta\chi^2$ (30) = 24.60, p > 0.05). This result demonstrates that the proposed measurement

model is invariant across the two groups. Furthermore, the proposed measurement model was

found to fit the data based on the goodness-of-fit indices (non-restricted measurement: χ^2 =

2,315.18, *df* = 1,390, RMSEA = 0.04, CFI = 0.92, and NNFI = 0.93; full metric invariance: χ^2 =

2,339.78, *df* = 1,420, RMSEA = 0.04, CFI = 0.92, and NNFI = 0.93).

Testing for structural invariance between low and high EV groups

The testing for structural invariance aimed to identify whether the proposed structural model is perceived differently between the two groups. Table 8 shows that the chi-square difference between the full metric invariance and full path invariance models is statistically significant ($\Delta\chi^2$ (9) = 39.02, p < 0.05), which suggests that the two groups perceive the relationships between quality dimensions and visitor satisfaction differently. Additionally, the proposed structural model was found to fit the data according to the goodness-of-fit indices (full metric invariance: χ^2 = 2,339.78, df = 1,420, RMSEA = 0.04, CFI = 0.91, and NNFI = 0.92; full path invariance: χ^2 = 2,378.80, df = 1,429, RMSEA = 0.04, CFI = 0.91, and NNFI = 0.92).

The full metric invariance model was employed as the baseline model to assess the structural model because it minimizes the effect of possible variation across the two groups in measurement structures (Bagozzi & Yi, 1989). In the baseline model (full metric invariance-based structural model), SEM was conducted simultaneously between the two groups to examine structural relationships. For the relationships between quality dimensions and visitor satisfaction (see Figures 4 and 5) across the two groups, exhibit program (γ_{12} = 0.23, t = 2.58) and entertainment program (γ_{12} = 0.18, t = 2.19) positively affected visitor satisfaction in low EV group. On the other hand, more quality dimensions favorably influenced visitor satisfaction in

high EV groups as follows: exhibit program ($\gamma_{12} = 0.41$, t = 3.94); admission experience ($\gamma_{14} = 0.25$, t = 2.56); entertainment program ($\gamma_{16} = 0.30$, t = 2.96); site environment ($\gamma_{12} = 0.28$, t = 2.74); and extra-Expo opportunities ($\gamma_{12} = 0.27$, t = 2.65). Consequently, those visitors who perceive higher EV were shown to experience more Expo quality dimensions impressively, which leads to visitor satisfaction.

Insert Figures 4 and 5 here

Chi-square difference tests were conducted to examine whether differences in corresponding paths were statistically significant across the two groups. Table 9 shows that the chi-square difference between the baseline model and the nested model, which was computed for one degree of freedom, allows the test of a significant difference in path coefficient across the two groups (Bagozzi & Yi, 1989). The tests show that five paths were statistically different between the two groups. Specifically, more positive relationships were observed in high EV group than in low EV group for the following paths: (1) entertainment program-satisfaction, (2) admission experience-satisfaction, (3) exhibit program-satisfaction, (4) site environment-satisfaction, and (5) extra-Expo opportunities-satisfaction. These findings support the moderating effects of EV on the relationships between Expo quality dimensions and visitor satisfaction.

Insert Table 9 here

IMPLICATIONS AND CONCLUSION

This study aims to explore what dimensions EV is comprised of, what quality aspects of Expo build up EV, and what is the differential consequence when visitors experience low vs. high EV. The previous event literature addresses the relationships among quality, value,

satisfaction, and behavioral intentions in understanding event-goer behavior. Gaining memorable experience is a crucial reason why individuals visit events, thus it is a compelling need to understand what triggers value associated with event experience and how EV affects event-goer behavior. Nonetheless, the concept of EV is not investigated in the event literature, although it is tested to a certain extent in the hospitality literature. The current study offers an extended view of event consumption experience from the perspective of EV, thus contributing to an understanding of the unexplored aspect of the event literature. The findings of this study present insights into quality antecedents of EV and the differential impacts of EV on the relationships between Expo quality and visitor satisfaction when visitors experience varying degrees of EV. This approach allows Expo operators to design Expo in a manner that fosters the EV of visitors and thus their satisfaction. The theoretical and practical implications of findings are discussed in this section.

For the validation of EV in the Expo, four EV dimensions (economic value, visual appeal, escapism, and excellence) were found and confirmed. However, enjoyment and entertainment were not observed because the measures of two dimensions had factor loadings lower than 0.4 and overlapped with those of escapism. Escapism highly reflected enjoyment and entertainment in the Expo; scales for escapism (e.g., "The Expo makes me feel like I am in another world") were suggestive of enjoyment (e.g., "I visit the Expo for the pure enjoyment of it") and entertainment (e.g., "The Expo is very entertaining") experienced in the Expo. These four dimensions also showed acceptable levels of reliability as well as convergent and discriminant validities. Therefore, these four dimensions were identified as the critical domains of the Expo EV, which can stimulate the positive post-consumption experience of visitors, as evidenced by the strong, positive relationship between EV and visitor satisfaction.

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Furthermore, EV was operationalized as a second-order factor of four dimensions, in which excellence and escapism were found to more strongly explain EV than economic value and visual appeal. This result suggests that Expo visitors rely on escapism and excellence in shaping their EV more than economic value and visual appeal. The plausible reasons for the powerful role of the two dimensions in EV are twofold. The value of escapism is deeply rooted in the key event motivation of "escape," wherein event-goers visit events to escape from the demands of their own worlds (Crompton & McKay, 1997; Nicholson & Pearce, 2001). Escapism thus contributes significantly to EV when Expo visitors are able to "get away from it all" or get so involved in the Expo attractions that they forget everything else for the time being. Meanwhile, the value of excellence is represented by the acknowledgment of promises and functions fulfilled (Oliver, 1999) and is heightened when service providers demonstrates reliable performance and expertise (Keng, Huang, Zheng, & Hsu, 2007). Excellence, therefore, allows Expo 2012 visitors to perceive more EV when the Expo offers value-added experience that exceeds their expectation.

For the identification of quality antecedents of EV, a nine-quality factor structure was derived and confirmed from the process of EFA and CFA. Among the nine factors, the following five dimensions were found to favorably drive EV: exhibit program; entertainment program; admission experience; site environment; and extra-Expo opportunities. Event program (i.e., exhibit and entertainment program) is well expected to act as a significant EV driver. Program provides visitors with opportunities to gain visually appealing contents, interactive and participatory experience, intellectual enrichment, socialization, and novelty, thus creating experience-based authenticity (existential authenticity). In particular, the Expo exhibit is considered a signature program that contributes the most to EV. The Expo holds multifarious exhibitions of 76 international pavilions for 106 participating countries and 10 international

organizations. Also, six pavilions are created to highlight issues on marine industry and technology, marine biological resources, marine biodiversity, and climate change. Additionally, visitors enjoy 400 programs with over 8000 cultural performances throughout the Expo, including a drama with circus stunts in the air and on water, an ocean opera and ballet on a sea stage, a pop festival, and a DJ dance show (Organizing Committee of Expo 2012, 2012). Visitors are presumed to sense more experience-based authenticity throughout the programs, thereby driving their EV.

Site environment refers to safety, natural environment, and the friendliness of local people, while extra-Expo opportunities are represented by cultural, shopping, and dining experiences. While staying in Expo site, visitors are highly exposed to local social and commercial environment; they experience local people, safety environment, and the quality of local attractions, shops, and restaurants. Their Expo experience would be badly ruined if they undergo service failures from local shops and unpleasant interactions with local people, although they are satisfied with Expo. Site environment, including natural, political, and social environments, is considered a significant destination dimension that affects destination image (Beerli & Martin, 2004). Individuals are discouraged from visiting Expo when they perceive that the quality of site environment (e.g., safety) is below their expectations. The importance of extra opportunities is specified in the convention literature (e.g., Lee & Min, 2013; Oppermann & Chon, 1997). Extra-opportunities, such as a variety of shopping opportunities and local attractions, add value to visitor experience and are thus effective in attracting visitors and making their stay more enjoyable. The results of this study suggest that visitors who have a favorable perception of site environment and extra-Expo opportunities are likely to boost their EV. Those two dimensions are thus deemed as critical EV drivers.

Together with the aforementioned four dimensions, admission experience is also found to serve as a quality antecedent of EV. Admission experience is operationalized as waiting time, ticket reservation system, and ticket price in this study. The issue of long waiting times is obvious in a theme park (e.g., Disneyland) where a long queue limits the number of rides visitors can enjoy. A serious dissatisfaction and complaint generally arise from long waiting experience (Lith, 2002). Similar to a theme park, a mega-event, such as Expo, is usually crowded with people, and a long queue is commonly observed in front of popular exhibit pavilions and entertainment performances. About 8.2 million people from 104 countries visit the Expo 2012 Yeosu Korea. If waiting time and experience are not managed properly, people would be dissatisfied or hesitate to visit Expo because they are afraid that long waiting time makes them exhausted and does not allow them to experience Expo as planned. Therefore, admission experience is crucial to visitor experience and satisfaction, supporting that it contributes to the formation of EV.

The moderating role of EV was also detected in the relationships between five EV drivers and visitor satisfaction: (1) entertainment program-satisfaction; (2) admission experience-satisfaction; (3) exhibit program-satisfaction; (4) site environment-satisfaction; and (5) extra-Expo opportunities-satisfaction. Specifically, those who perceive low EV are likely to be satisfied by relying on the quality of exhibit and entertainment program only; the remaining quality dimensions were not linked to the overall satisfaction of low EV visitors. On the contrary, more quality antecedents, including exhibit and entertainment program, admission experience, site environment, and extra-Expo opportunities, contribute to the overall satisfaction of visitors when they sense EV very much. This finding suggests that when visitors favorably experience more attributes from the five EV quality antecedents, their EV grows bigger. The moderating

effects of EV further verify five quality dimensions of driving EV, supporting the role of EV in event-goer behavior.

The findings of this study can provide Expo organizers with practical insights into the effective management of periodically recurring Expos. Given that quality is an antecedent of EV central to creating visitor satisfaction, Expo operators should strategically manage Expo quality attributes to boost visitor EV. This study suggests that the quality dimensions of exhibit and entertainment programs are fundamental to the formation of EV because these two dimensions commonly contribute to the overall satisfaction of low and high EV visitors. Consistent with the prior literature that event programs are traditionally critical to event quality (Lee et al., 2011), the current study argues that exhibit and entertainment programs are significant determinants of EV. In budgeting Expos, the design of exhibits and entertainment programs should be prioritized over other quality dimensions to induce greater excellence and escapism as well as improved visual appeal and economic value from the perspective of visitors. Also, admission experience is deemed as another important quality domain of boosting EV. To reduce waiting times, Expo 2012 employs a smart ticket system (wristband type) that allows Expo operators to offer real-time reservation for pavilions, information about the number of visitors in queue, and fast entry and to identify the location of ticket holders. In addition, this study suggests that Expo operators consider entertaining visitors in a long queue to relieve their boredom. Performers (e.g., magicians) can interact with visitors in a waiting line, and video game stations can be available along the line to stay visitors entertained. Unlike event program and admission experience, site environment and extra-Expo opportunities are not under the direct control of Expo organizers. However, the quality of these domains can be managed during a site selection process of Expo venue. Because these two dimensions are considered EV drivers, Expo organizers should select a

destination wherein existing site environment and extra-opportunities are supportive of value-added experience for Expo visitors. Additionally, in collaboration with local communities and other stakeholders, a local government can launch a campaign to upgrade infrastructure and refine social and natural environments to the extent that visitors find their stay pleasurable.

The significance of EV is well demonstrated by the results of this study. If visitors are pleased with five EV drivers, they develop more EV that leads to greater visitor satisfaction. Expo visitors build up EV on escapism (e.g., "The Expo makes me feel like I am in another world"), excellence (e.g., excellent experience), visual appeal (e.g., visually attractive and aesthetically appealing), and economic value (e.g., value for money). The Expo is periodically held by host destinations around the world. Even after the Expo period is over, the Expo facility remains as a post-Expo attraction open to the public. The findings of this study provide useful implications for Expo operators who will stage Expos in the future and manage post-Expo attractions.

Limitations and Future Research

This study demonstrated the critical role of EV in examining the consumption experience of Expo 2012 visitors and found four EV dimensions. However, the findings of this study may not be generalized to other types of events (e.g., sporting events, academic conventions, exhibitions etc.) because EV dimensions vary with the type and context of each event. Future research is recommended to explore the differential roles of EV in the context of conventions or exhibitions. Moreover, EV would be perceived differently by varying categories of age, income, education, and so on. Thus, examining the effects of demographic variables on EV is a worthwhile endeavor—one that can enrich our understanding of event-goer behaviors associated with EV.

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		Extrinsic	Intrinsic
Self-oriented	Active	Efficiency	Play
	Reactive	Excellence	Aesthetics
Other-oriented	Active	Status	Ethics
	Reactive	Esteem	Spirituality

TABLE 1. Typology of Perceived Value

Source: Holbrook (1999)

TABLE 2. Typology of EV

	Extrinsic	Intrinsic
Active	**Consumer Return on Investment (ROI)** . Efficiency . Economic value	**Playfulness** . Escapism . Enjoyment
Reactive	**Service Excellence**	**Aesthetics** . Visual appeal . Entertainment

Source: Mathwick et al. (2001)

TABLE 3. Results of Exploratory Factor Analysis for EV

Factors	Factor Loading	Cronbach's Alpha
Factor 1: Economic Value (eigenvalue: 4.22; % of variance: 32.47)		0.80
1. Overall, I am happy with the expenditure on the Expo.	0.92	
2. Visiting the Expo is a good economic value.	0.68	
3. Visiting the Expo is worth the money I paid.	0.65	
Factor 2: Visual Appeal (eigenvalue: 1.43; % of variance: 11.05)		0.81
1. The way the Expo displays itself is attractive.	0.89	
2. The Expo is aesthetically appealing.	0.85	
3. The exterior of the Expo is attractive.	0.54	
4. The Expo is visually attractive.	0.53	
Factor 3: Escapism (eigenvalue: 1.25; % of variance: 9.65)		0.75
1. The Expo makes me feel like I am in another world.	-0.86	
2. I get so involved when I am in the Expo that I forget everything else.	-0.62	
3. The Expo gets me away from it all.	-0.60	
Factor 4: Excellence (eigenvalue: 1.07; % of variance: 8.29)		0.75
1. I have an excellent experience with the Expo.	-0.96	
2. I experience outstanding service from the Expo.	-0.63	
3. When I think of the Expo, I think of excellence.	-0.58	

Note: Kaiser-Meyer-Olkin measure of sampling adequacy=0.83, Bartlett's test of sphericity=$p<0.001$

TABLE 4. Results of Exploratory Factor Analysis for Event Quality

Factors	Factor Loading	Cronbach's Alpha
Factor 1: F&B and Merchandise (eigenvalue: 9.24; % of variance: 24.98)		.80
1. The food and beverages are of acceptable quality.	0.84	
2. The food and beverages have variety.	0.69	
3. The prices of the food and beverages are not reasonable.	0.55	
4. The prices of merchandise are not reasonable.	0.45	
5. The merchandise items have variety.	0.41	
Factor 2: Exhibit Program (eigenvalue: 2.94; % of variance: 7.97)		.78
1. The exhibit program is creative.	0.76	
2. The exhibit program has variety.	0.71	
3. The exhibit program is of high quality.	0.66	
4. The exhibit program is not technically advanced.	0.56	
Factor 3: Staff Service (eigenvalue: 2.11; % of variance: 5.70)		.80
1. Staff have good service attitudes.	0.83	
2. Staff are responsive.	0.73	
3. Staff are not friendly.	0.71	
4. Staff have good knowledge on their jobs.	0.69	
Factor 4: Admission Experience (eigenvalue: 1.90; % of variance: 5.14)		.85
1. Waiting time is acceptable to visitors.	0.87	
2. Waiting time is well controlled by the Expo.	0.78	
3. The ticket reservation system is not acceptable to visitors.	0.63	
4. Ticket price is reasonable.	0.60	
Factor 5: Informational Service (eigenvalue: 1.69; % of variance: 4.56)		.80
1. The Expo website is well designed for obtaining information.	-0.80	
2. Social media are available to access Expo information.	-0.69	
3. Interpretation services and bilingual signage are available for foreigners.	-0.51	
4. Information/directions signage is easy to understand.	-0.45	
Factor 6: Entertainment Program (eigenvalue: 1.50; % of variance: 4.03)		.79
1. Entertainment events are well organized.	-0.88	
2. Entertainment events are not fun.	-0.70	
3. Entertainment events are participatory.	-0.60	
4. Entertainment events have variety.	-0.57	
Factor 7: Adequacy of Facilities (eigenvalue: 1.37; % of variance: 3.72)		.79
1. Parking facilities are easily accessible.	-0.61	
2. Public toilets are clean.	-0.58	
3. Expo grounds are spacious enough to accommodate visitors.	-0.58	
4. Parking facilities are convenient to use.	-0.54	
5. The Expo venue is convenient to reach by various modes of public transportation.	-0.41	
Factor 8: Site Environment (eigenvalue: 1.28; % of variance: 3.47)		.71

1. The Expo site is safe.	0.71	
2. The surrounding natural environment of the Expo is beautiful.	0.52	
3. Local people are not friendly.	0.43	
Factor 9: Extra-Expo Opportunities (eigenvalue: 1.20; % of variance: 3.24)		.77
1. The Expo offers an opportunity for enjoying shopping.	-0.68	
2. The Expo offers an opportunity for enjoying a variety of foods.	-0.64	
3. The Expo offers an opportunity for experiencing a variety of world cultures.	-0.55	
4. The Expo offers an opportunity for enjoying world cultural performances.	-0.48	

Note: Kaiser-Meyer-Olkin measure of sampling adequacy=0.87, Bartlett's test of sphericity=$p < 0.001$

TABLE 5. Results of Confirmatory Factor Analysis for Conceptual Model 1

Factors	Factor Loading	t-value
F&B and Merchandise (AVE: 0.55)		
1. The food and beverages are of acceptable quality.	0.78	12.76
2. The food and beverages have variety.	0.75	NA
3. The prices of the food and beverages are not reasonable.	0.76	12.21
4. The prices of merchandise are not reasonable.	0.73	11.94
5. The merchandise items have variety.	0.67	11.33
Exhibit Program (AVE: 0.53)		
1. The exhibit program is creative.	0.77	11.98
2. The exhibit program has variety.	0.76	NA
3. The exhibit program is of high quality.	0.72	11.56
4. The exhibit program is not technically advanced.	0.65	10.91
Staff Service (AVE: 0.54)		
1. Staff have good service attitudes.	0.80	17.72
2. Staff are responsive.	0.73	NA
3. Staff are not friendly.	0.73	14.70
4. Staff have good knowledge on their jobs.	0.68	13.83
Admission Experience (AVE: 0.63)		
1. Waiting time is acceptable to visitors.	0.90	16.68
2. Waiting time is well controlled by the Expo.	0.86	16.20
3. The ticket reservation system is not acceptable to visitors.	0.72	14.16
4. Ticket price is reasonable.	0.66	NA
Informational Service (AVE: 0.52)		
1. The Expo website is well designed for obtaining information.	0.79	14.15
2. Social media are available to access Expo information.	0.73	13.68
3. Interpretation services and bilingual signage are available for foreigners.	0.71	NA
4. Information/directions signage is easy to understand.	0.65	12.63
Entertainment Program (AVE: 0.53)		
1. Entertainment events are well organized.	0.81	14.43
2. Entertainment events are not fun.	0.75	13.78
3. Entertainment events are participatory.	0.68	12.75
4. Entertainment events have variety.	0.66	NA
Adequacy of Facilities (AVE: 0.53)		
1. Parking facilities are easily accessible.	0.77	NA
2. Public toilets are clean.	0.75	14.46
3. Expo grounds are spacious enough to accommodate visitors.	0.72	13.42
4. Parking facilities are convenient to use.	0.71	13.35
5. The Expo venue is convenient to reach by various modes of public transportation.	0.67	12.75
Site Environment (AVE: 0.54)		

1. The Expo site is safe.	0.76	10.09
2. The surrounding natural environment of the Expo is beautiful.	0.72	NA
3. Local people are not friendly.	0.72	9.95
Extra-Expo Opportunities (AVE: 0.57)		
1. The Expo offers an opportunity for enjoying shopping.	0.77	NA
2. The Expo offers an opportunity for enjoying a variety of foods.	0.77	14.01
3. The Expo offers an opportunity for experiencing a variety of world cultures.	0.75	13.26
4. The Expo offers an opportunity for enjoying world cultural performances.	0.74	12.98
Economic Value (AVE: 0.58)		
1. Overall, I am happy with the expenditure on the Expo.	0.85	15.83
2. Visiting the Expo is a good economic value.	0.69	13.98
3. Visiting the Expo is worth the money I paid.	0.74	NA
Visual Appeal (AVE: 0.54)		
1. The way the Expo displays itself is attractive.	0.83	12.47
2. The Expo is aesthetically appealing.	0.84	12.55
3. The exterior of the Expo is attractive.	0.65	10.97
4. The Expo is visually attractive.	0.57	NA
Escapism (AVE: 0.51)		
1. The Expo makes me feel like I am in another world.	0.77	12.41
2. I get so involved when I am in the Expo that I forget everything else.	0.72	12.02
3. The Expo gets me away from it all.	0.64	NA
Excellence (AVE: 0.53)		
1. I have an excellent experience with the Expo.	0.83	13.18
2. I experience outstanding service from the Expo.	0.70	12.24
3. When I think of the Expo, I think of excellence.	0.63	NA
Visitor Satisfaction (AVE: 0.63)		
1. I am very satisfied with the overall experience at the Expo.	.76	NA
2. As a whole, I am happy with the Expo.	.86	13.18
3. I believe I did the right thing to visit the Expo.	.76	12.24

TABLE 6. Correlations (squared correlations) and mean

	F&M	ENP	SS	AE	IS	EXP	SE	AF	EEO	EV	VS
F&M	1.00										
ENP	.28(.07)	1.00									
SS	.25(.06)	.32(.10)	1.00								
AE	.52(.27)	.26(.06)	.24(.05)	1.00							
IS	.39(.15)	.40(.16)	.28(.07)	.39(.15)	1.00						
EP	.22(.04)	.39(.15)	.22(.04)	.16(.02)	.26(.06)	1.00					
SE	.46(.21)	.30(.09)	.35(.12)	.38(.14)	.47(.22)	.19(.03)	1.00				
AF	.24(.05)	.34(.11)	.27(.07)	.25(.06)	.37(.13)	.25(.06)	.35(.12)	1.00			
EEO	.47(.22)	.34(.11)	.25(.06)	.32(.10)	.43(.18)	.24(.05)	.43(.18)	.37(.13)	1.00		
EV	.34(.11)	.33(.10)	.27(.07)	.32(.10)	.32(.10)	.38(.14)	.37(.13)	.37(.13)	.42(.17)	1.00	
VS	.28(.07)	.41(.16)	.25(.06)	.32(.10)	.30(.09)	.46(.21)	.22(.04)	.28(.07)	.33(.10)	.50(.25)	1.00
Mean	3.37	3.74	3.83	3.21	3.63	3.70	3.57	3.69	3.54	3.55	3.60
Std. Dev.	.73	.67	.69	.94	.67	.60	.73	.69	.73	.54	.74

Note: F&M = F&B and Merchandise; ENP = Entertainment Program; SS = Staff Service; AE = Admission Experience; IS = Informational Service; EXP = Exhibit Program; SE = Site Environment; AF = Adequacy of Facilities; EEO = Extra-Expo Opportunities; EV= Experiential Value; VS=Visitor Satisfaction

TABLE 7. Testing for Measurement Invariance across Low and High EV Groups

	Chi-Square	*df*	RMSEA	CFI	NNFI
Non-restricted measurement model	2.315.18	1,390	0.04	0.92	0.93
Full metric invariance (L(X)Y=IN)	2,339.78	1,420	0.04	0.92	0.93

Note: Full metric invariance is supported [$\Delta\chi2$ (30) = 24.60, p > 0.05], IN = Invariance

TABLE 8. Testing for Structural Invariance across Low and High EV Groups

	Chi-Square	df	RMSEA	CFI	NNFI
Full metric invariance (L(X)Y=IN)	2,339.78	1,420	0.04	0.91	0.92
Full path invariance (L(X)Y=IN, GA=IN, BE=IN)	2,378.80	1,429	0.04	0.91	0.92

Note: The structural model is different between the two groups [$\Delta\chi2$ (9) = 39.02, p < 0.05].
IN = Invariance

TABLE 9. Chi-Square Difference Tests for Paths

Paths	Fit of the Model with the Path		Test of Invariance
	(Baseline Model) Freely Estimated	(Nested Model) Fixed to be Equal	$\Delta\chi^2$ Test
F&M→VS	$\chi^2 (1,420) = 2,339.78$	$\chi^2 (1,421) = 2,340.38$	$\Delta\chi^2 (1) = .60$ p > .05
ENP→VS	**$\chi^2 (1,420) = 2,339.78$**	**$\chi^2 (1,421) = 2,344.01$**	**$\Delta\chi^2 (1) = 4.23$ p < .05**
SS→VS	$\chi^2 (1,420) = 2,339.78$	$\chi^2 (1,421) = 2,340.34$	$\Delta\chi^2 (1) = .56$ p > .05
AE→VS	**$\chi^2 (1,420) = 2,339.78$**	**$\chi^2 (1,421) = 2,344.23$**	**$\Delta\chi^2 (1) = 4.45$ p < .05**
IS→VS	$\chi^2 (1,420) = 2,339.78$	$\chi^2 (1,421) = 2,340.56$	$\Delta\chi^2 (1) = .78$ p > .05
EXP→VS	**$\chi^2 (1,420) = 2,339.78$**	**$\chi^2 (1,421) = 2,344.58$**	**$\Delta\chi^2 (1) = 4.80$ p < .05**
SE→VS	**$\chi^2 (1,420) = 2,339.78$**	**$\chi^2 (1,421) = 2,344.51$**	**$\Delta\chi^2 (1) = 4.73$ p < .05**
AF→VS	$\chi^2 (1,420) = 2,339.78$	$\chi^2 (1,421) = 2,340.80$	$\Delta\chi^2 (1) = 1.02$ p > .05
EEO→VS	**$\chi^2 (1,420) = 2,339.78$**	**$\chi^2 (1,421) = 2,344.63$**	**$\Delta\chi^2 (1) = 4.85$ p < .05**

Note: A path in bold indicates a significant difference between low and high EV groups.
F&M = F&B and Merchandise; ENP = Entertainment Program; SS = Staff Service; AE = Admission Experience; IS = Informational Service; EXP = Exhibit Program; SE = Site Environment; AF = Adequacy of Facilities; EEO = Extra-Expo Opportunities; VS=Visitor Satisfaction
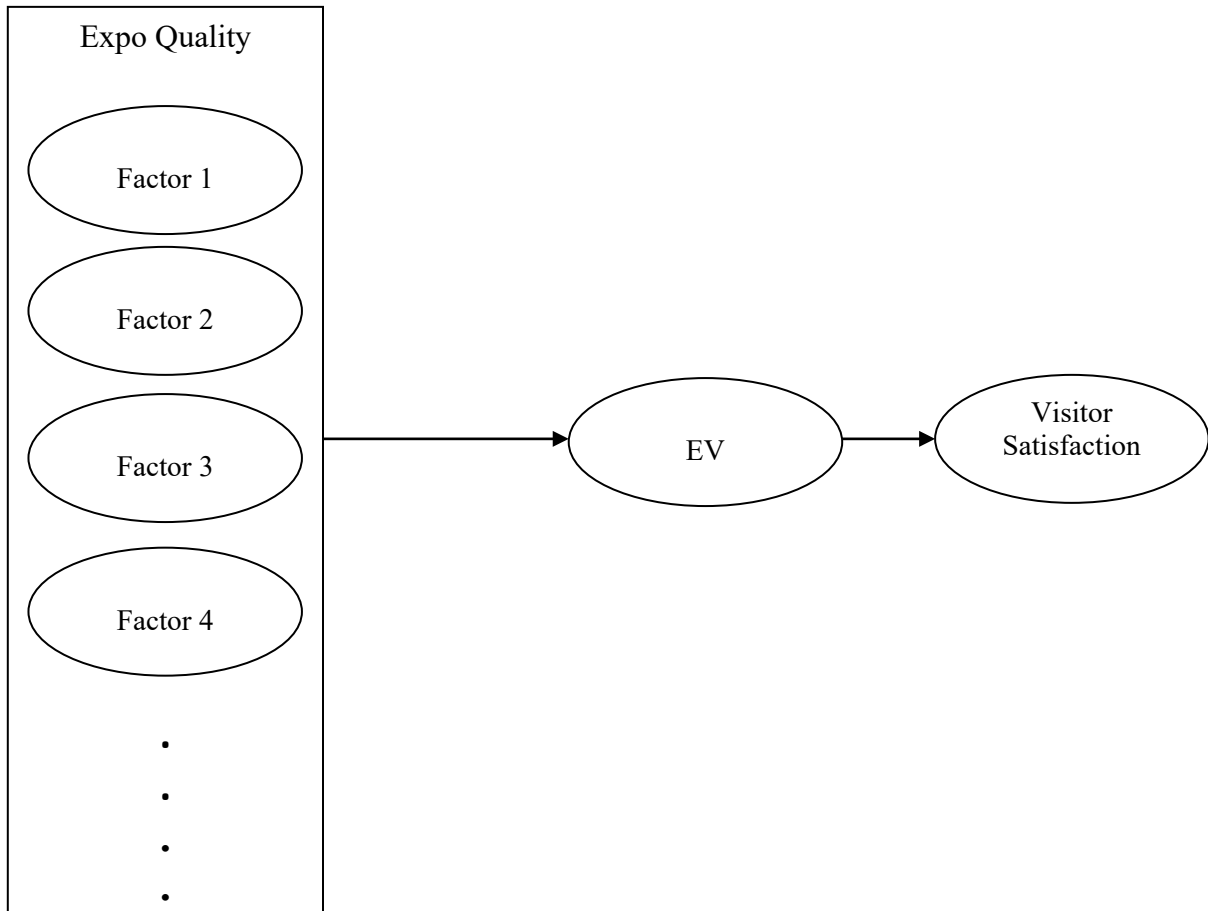
Figure 1. A Proposed Conceptual Model 1
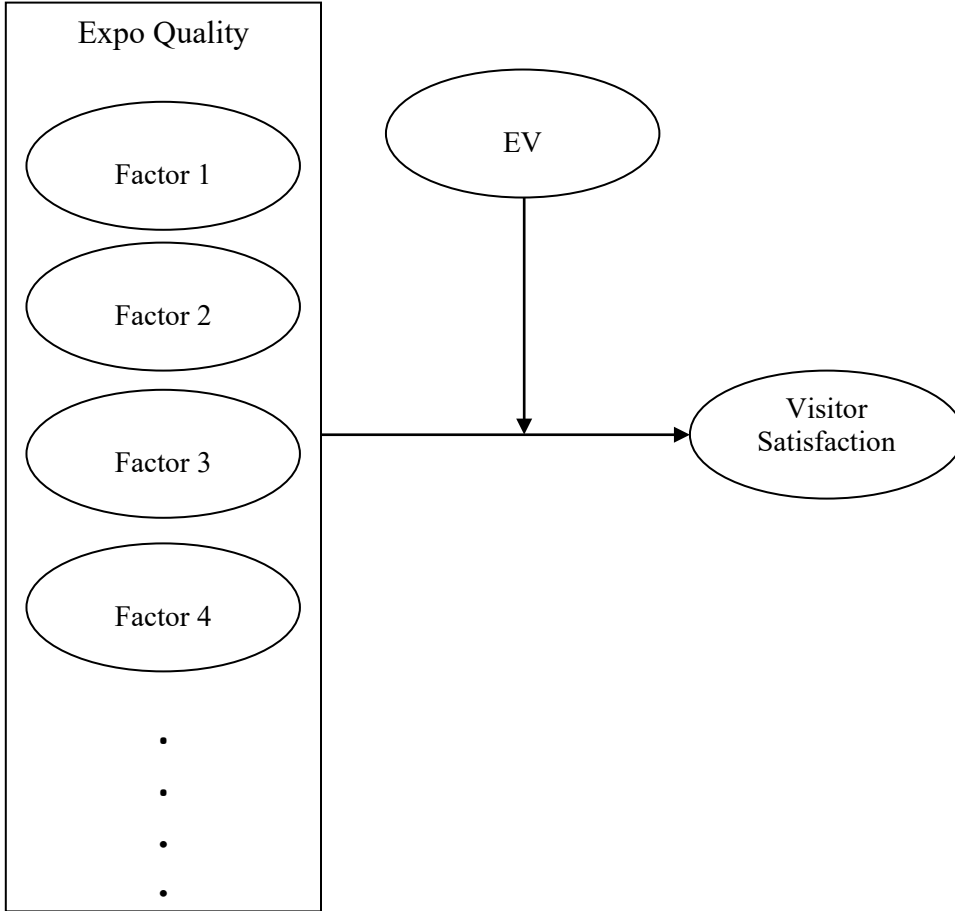
Figure 2. A Proposed Conceptual Model 2

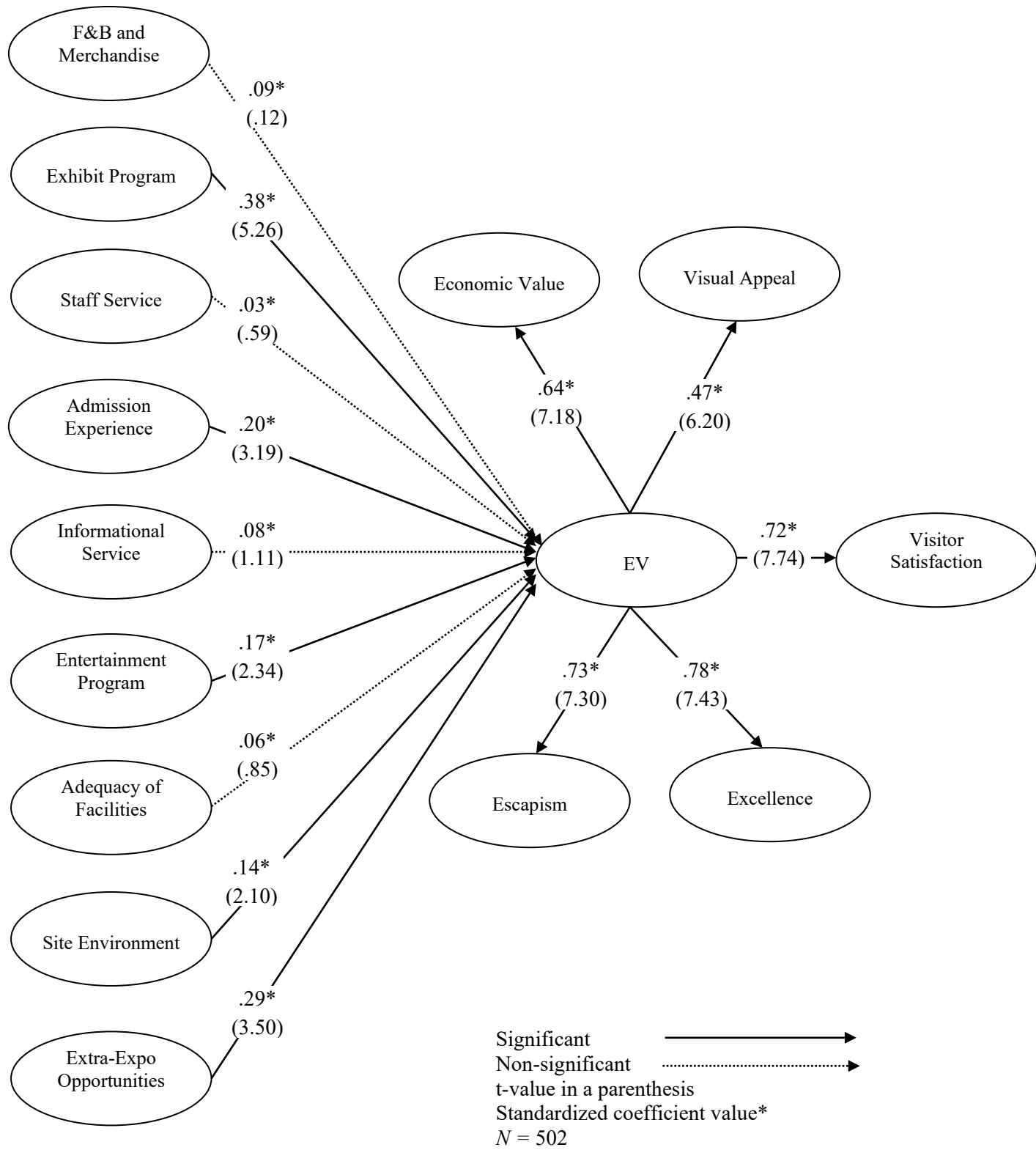Figure 3. Results of the Conceptual Model 1
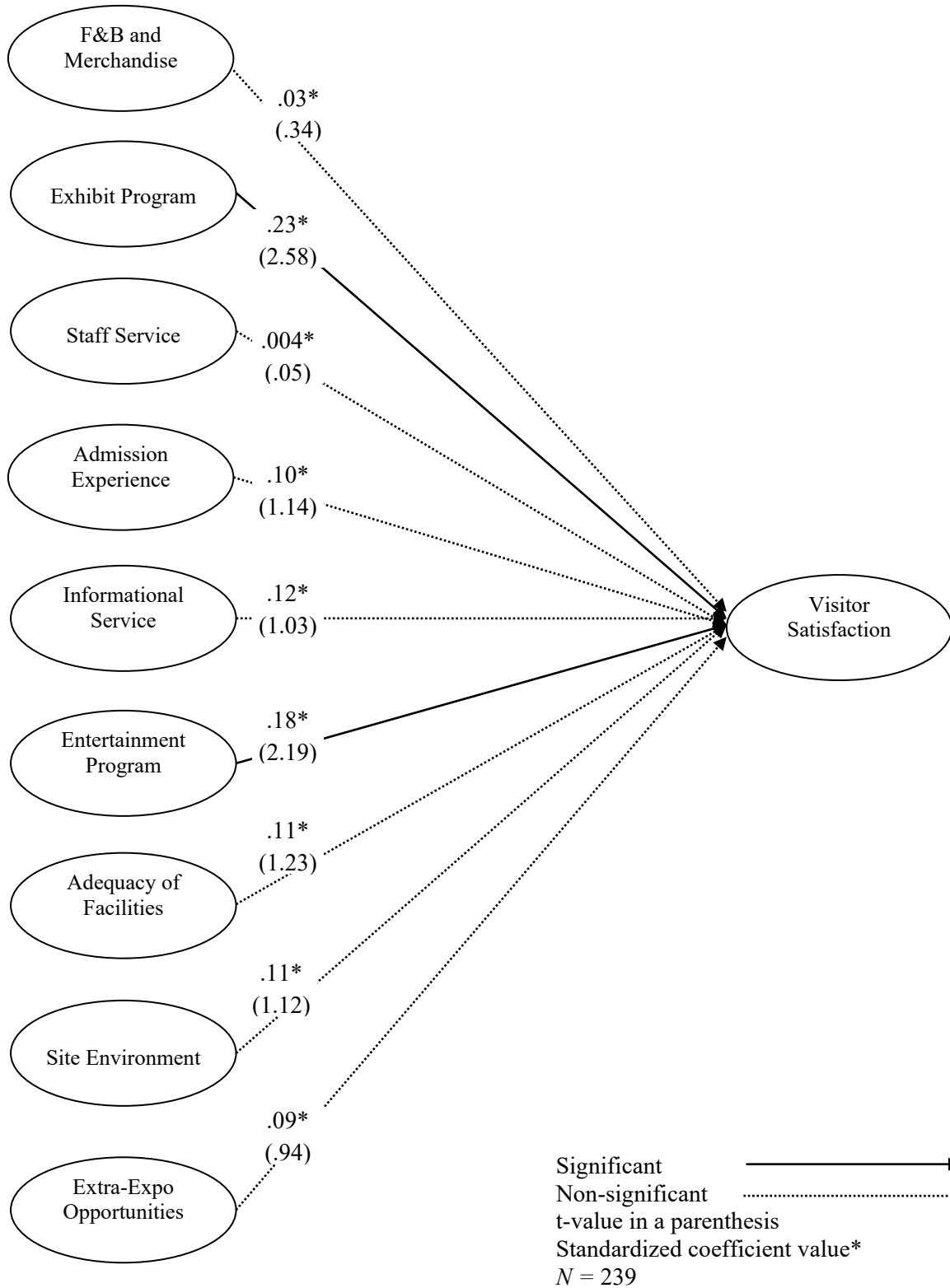
Figure 4. Results of the Conceptual Model 2 for Low EV Group

Figure 5. Results of the Conceptual Model 2 for High EV Group