A THREE-COMPONENT FRAMEWORK FOR
TRADE SHOW PERFORMANCE EVALUATION

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by

Yeqiang Lin

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The dissertation of Yeqiang Lin was reviewed and approved* by the following:

Deborah L. Kerstetter
Professor of Recreation, Park and Tourism Management
Professor in Charge of the Graduate Program
Dissertation Advisor
Chair of Committee

Alan R. Graefe
Professor of Recreation, Park and Tourism Management

Benjamin D. Hickerson
Assistant Professor of Recreation, Park and Tourism Management

Donald C. Hambrick
Evan Pugh Professor and the Smeal Chaired Professor of Management

*Signatures are on file in the Graduate School
ABSTRACT

Satisfaction is one of the most studied subjects in the field of tourism, yet there have been few studies of satisfaction with trade shows, which represent a sizeable and increasingly important segment of the industry. Efforts to address satisfaction with trade show performance at the theoretical level have been quite limited or nonexistent. Furthermore, previous studies have failed to recognize the three key stakeholders in the trade show industry (i.e., visitors, exhibitors, and organizers) and the outcomes (e.g., satisfaction and behaviors) of their interactions. This dissertation fills this gap by 1) proposing a trade show performance evaluation framework that accounts for the relationships between visitors, exhibitors, and organizers; 2) constructing a measurement scale on exhibitors’ satisfaction based on the proposed conceptual framework; and 3) applying the scale at multiple trade shows to examine its reliability and validity and the relationships between the three dimensions and behavioral intention.

The results of the dissertation are spread out across three chapters (i.e., Chapter 2, 3 and 4), each of which is written as a separate manuscript. In the first manuscript (Chapter 2) I proposed the Visitor-Exhibitor-Organizer (VEO) framework, which could be used by trade show organizers to measure their customers’ (i.e., exhibitors and visitors) satisfaction and positive behavioral intention. Based on the VEO framework, an exhibitor and a visitor performance evaluation model were constructed. The results validated the VEO framework by indicating that it is not adequate to focus on one stakeholder when evaluating trade show performance.

The second manuscript (Chapter 3) focused on exhibitors’ satisfaction. This manuscript outlined how I constructed and validated a measurement scale that accounts
for the significant roles of all three key stakeholders through a pilot test, scale purification and validation. The final instrument consisted of 46-items that represented 12 sub-dimensions and 3 dimensions of exhibitors’ satisfaction. The resulting instrument was found to be superior to existing instruments in that it comprehensively measures exhibitors’ performance at a trade show and explains a large portion of exhibitors’ overall satisfaction.

In the third manuscript (Chapter 4) I applied the 46-item measurement scale on exhibitors’ satisfaction to predict positive behavioral intention. Using data from 594 exhibitors at three trade shows, it was found that all three dimensions (i.e., satisfaction with self-performance, satisfaction with organizers, and satisfaction with visitors) are significantly and positively related to exhibitors’ positive behavioral intention. Satisfaction with organizers turned out to be the dominant predictor and the three dimensions in combination explained approximately two thirds of the variance in exhibitors’ positive behavioral intention.

As a whole, the findings have significant theoretical and managerial implications. This dissertation introduced a new approach to measuring satisfaction in the trade show industry by incorporating key stakeholders in the evaluation framework. Trade show organizers could use the measurement scale to assess exhibitors’ overall satisfaction, measure their behavioral intention, and manage and promote their trade shows. Furthermore, the findings indicated that satisfaction with organizers is the strongest predictor of exhibitors’ positive behavioral intention, while satisfaction with self-performance and visitors also positively affected positive behavioral intention.
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Chapter 1 Introduction

Customer satisfaction has been studied extensively in tourism (Gursoy, McCleary & Lepsito 2007; Jung, 2005; Neal & Gursoy, 2008; Zhang, Qu, & Ma, 2010). However, much of the research has been conducted with customers only and ignored other equally important stakeholders (Lee & Back, 2009). This myopic approach is especially problematic in one segment of the tourism industry—trade shows (Harris, 2000).

Trade shows are the largest business-to-business (B2B) marketing medium and a multi-billion-dollar industry (American Business Media, 2013). Participants can visit with more customers (the majority of whom have high levels of purchase influence) in one hour than they normally would in a week (Gillette, 2001; Rosson & Seringhaus, 1995). Thus, trade shows constitute an important component of businesses’ marketing portfolios.

Although there have been many studies on trade show performance, two major issues have not been addressed. First, efforts to define trade show performance at the theoretical level have been quite limited or nonexistent (Hansen, 2004); most studies have focused on observational indicators such as actual sales at the show, number of leads, and attraction efficiency (e.g., Dekimpe, François, Gopalakrishna, Lilien, & van den Bulte, 1997; Gopalakrishna & Lilien, 1995; Kerin & Cron, 1987). The authors of these studies have claimed that their measures are indicators of performance, but failed to support those claims with clear definitions of specific dimensions or to provide evidence of reliability and validity. As a result, the connection between the theoretical and observational levels is not well demonstrated, and the trade show performance
literature lacks a comprehensive conceptual framework of trade show performance as well as reliable and valid scales (Hansen, 2004).

Second, previous studies have failed to recognize the three key stakeholders (i.e., visitors, exhibitors, and organizers) and the outcomes (e.g., perceptions, behaviors) of their interactions. Most of the literature on trade show performance evaluation has examined the performance of one group at a time and ignored its interactions with other stakeholders (e.g., Berne & García-Uceda, 2008; Gopalakrishna & Lilien, 1995; Hansen, 1999; Reinhold, Reinhold, & Schmitz, 2010). Exceptions include studies by Herbig, O’Hara, and Palumbo (1997), Munuera and Ruiz (1999), and Jin, Weber, and Bauer (2012). They accounted for the relationships between two stakeholders and their impacts on trade show performance. No studies on the intricate relationships between all three key stakeholders—trade show visitors, exhibitors, and organizers—exist.

Stakeholder theory (Freeman, 1984) recognizes that successful performance of a business is dependent on the external environment, which is made up of key stakeholders. In a trade show setting the key stakeholders or “actors” are visitors, exhibitors, and organizers. Face-to-face contact is a key feature of a trade show that distinguishes it from other types of B2B marketing and is one of its most valuable features (Godar & O’Connor, 2001). The interactions that take place at a trade show also involve organizers (Jin et al., 2012), the third key stakeholder, whose customers are visitors and exhibitors (Jung, 2005). The eventual success of a trade show depends largely on its ability to meet the objectives of all three key stakeholders (Gopalakrishna, Roster, & Sridhar, 2010).

The specific objectives of this study are to: 1) propose a trade show performance evaluation framework that accounts for the relationships between visitors, exhibitors, and
organizers; 2) construct a measurement scale on exhibitors’ satisfaction based on the proposed conceptual framework; and 3) apply the scale at multiple trade shows to examine its reliability and validity. It is expected that the results of this study will lay the groundwork for a new trade show performance evaluation framework that can be used in future trade show research. Further, the results will contribute to the literature by introducing a new comprehensive approach to measuring satisfaction and behavioral intention in a trade show context.

**Literature Review**

**Trade Shows**

Trade shows represent a multi-billion dollar industry. In 1983, more than 91,000 firms spent $7 billion exhibiting products and services to more than 31 million prospective buyers at more than 8,000 trade shows in the United States (U.S.; Trade Show Bureau, 1986). By 1998, 1.5 million companies were spending 17.3% of their marketing budget (i.e., $12.6 billion) on trade shows (Harris, 2000). The most recent report indicates that trade show spending is now the biggest B2B marketing expenditure (American Business Media, 2013).

The Convention Industry Council (CIC, 2004) defines a trade show as an exhibition of products and/or services held for members of a common or related industry. Its fundamental purpose is to bring buyers (i.e., visitors) and sellers (i.e., exhibitors) together. As the largest B2B marketing medium (American Business Media, 2013), trade shows allow exhibitors to visit with more visitors in an hour than they would normally see in a week (Gillette, 2001), which is compelling because 79% to 90% of the visitors at
trade shows have high levels of purchase influence (Rosson & Seringhaus, 1995). But, do these interactions lead to satisfactory outcomes such as higher profitability for the exhibitor, intention to return, and positive word-of-mouth?

The advantages of trade shows have been discussed extensively through the years. Average total costs per contact at a show for an exhibiting company have remained consistently at one third of the cost of a personal sales call. According to the Trade Show Bureau (1994), it takes an average of 3.7 sales calls to close a deal at $292 per call, versus $185 to close a deal at a trade show followed by 0.8 follow-up sales calls. These figures yield a total cost of $1,080 (3.7 x $292) for sales calls versus $419 ($185+0.8 x $292) for trade shows. Additional advantages of using a trade show include: the opportunity to affect multiple phases of the buying process in a single location; creating awareness of new products or services; reinforcing existing customer relationships; providing product or service demonstrations for evaluation; establishing relationships between vendors and prospects; allowing sales of products or services on site; and significantly influencing industrial buying during the need recognition and vendor evaluation stages of the purchase process (Bonomo, 1983; Kerin & Cron, 1987).

**Trade Shows in China**

In recent years countries in other parts of the world have begun to support trade shows. Asia has capitalized on this market with extensive investment in conference and exhibition infrastructure (Weber & Ladkin, 2009). China’s trade show industry has witnessed rapid development within the past decade. Convention centers are being built all over the country and the government is extremely supportive of the development of
the trade show industry. According to the Global Association of the Exhibition Industry (UFI), China’s indoor exhibition space amounted to 2.5 million square meters in 2007, the third highest in the world after the U.S. and Germany. It was estimated that in 2010 the total indoor exhibition space in China would have increased to almost 3 million square meters (UFI, 2007). Exhibitors’ satisfaction and decision-making with respect to trade shows in China, however, has received relatively little attention. Thus, China is a viable context in which to conduct this study.

**Organizer-Oriented Trade Show Evaluation**

Organizers are the main propeller of the trade show industry and play an important role in its success. Despite their importance, management and marketing issues organizers face have been given scant attention in the literature. Berne and García-Uceda (2008) argued that with increased competition trade show organizers will have to differentiate themselves by offering user-oriented services such as guarantees (i.e., trade show will attract a large number of exhibitors and visitors) and/or evaluations that organizers can use to assess their customers’ satisfaction and guide their future strategies.

A primary objective of trade show organizers is to create effective shows that result in positive outcomes for both exhibitors and visitors. However, the amount of research into what makes an effective trade show and what contributes to visitors’ and exhibitors’ satisfaction remains limited (Gottlieb, Brown, & Drennan, 2011). Further, few researchers have analyzed trade show evaluation systematically from the organizer’s perspective.
Key Stakeholders in Trade Show Evaluation

A central argument of stakeholder theory is that businesses need to address all stakeholders’ interests rather than maximize one group’s position to the detriment of others (Freeman & McVea, 2001). In the context of trade shows, there are three stakeholders: visitors, exhibitors, and organizers (Jin et al., 2012).

A common objective of trade show organizers is to increase the number of exhibitors and visitors. To do this organizers must document and act upon the behaviors and satisfaction of exhibitors and visitors and why and how they make decisions. In documenting this information all key stakeholders must be studied as their satisfaction and positive behavioral intention are dependent on other stakeholders. To date, most studies on trade shows have only incidentally touched upon the intricate relationships between the three key stakeholders (i.e., visitors, exhibitors, and organizers); they have failed to account for (a) all of the stakeholders and (b) how their interactions with each other impact their own satisfaction and positive behavioral intention. Thus, to begin, this study intends to construct and validate a Visitor-Exhibitor-Organizer (VEO) conceptual framework that emphasizes the relationships between the three key stakeholders (Figure 1). In the VEO framework exhibitors’ and visitors’ overall satisfaction with a trade show consists of three components, satisfaction with self-performance and satisfaction with the other two key stakeholders, respectively. Each of the links within the VEO framework are addressed more thoroughly in the following sections.
Figure 1. Proposed VEO framework for trade show evaluation

Self-Performance

*Exhibitor’s Satisfaction with Their Self-Performance*

Exhibitors participate in trade shows with the expectation of benefits such as sales, qualified leads, networking, and reputation-building (Sashi & Perretty, 1992). Exhibitors’ self-performance corresponds to their perception of their own performance at a trade show and is usually measured against pre-set objectives (Hansen, 2004).

In the 1990s, several scholars explored exhibitor’s self-performance by studying key indicators of trade show success for exhibitors, such as pre-show promotion spending, number of visitors from the target audience, and conversion efficiency (e.g., Dekimpe et al., 1997; Gopalakrishna & Lilien, 1995). While these studies did not present a practical way of measuring exhibitors’ trade show performance, more recent efforts have identified factors that are important to exhibitors and Hansen (2004) has introduced an instrument for measuring self-performance.
Trade show exhibitors have indicated that qualified leads and customer relationships are more important than selling activities (Seringhaus & Rosson, 2004). In addition, they value information-sharing, sense-making, and developing relationship-specific memories. Li (2007) contended that these outcomes could occur between exhibitors and visitors in trade shows and that their influence on performance outcomes as perceived by exhibitors was quite powerful.

Hansen (2004) argued that trade show performance should be evaluated using a combination of outcome-based and behavior-based measures. Hansen constructed a measurement scale that included one outcome-based dimension (sales-related activities) and four behavior-based dimensions (information-gathering activities, image-building activities, motivation activities, and relationship-building activities). These five dimensions have been empirically examined and the results indicate excellent reliability and validity.

Visitor’s Satisfaction with Their Self-performance

Customers of both trade show organizers and exhibitors are considered “visitors” (Jung, 2005; Whitfield & Webber, 2011). The majority of the literature on visitor-oriented trade show evaluation focuses on pre-show evaluation, which helps visitors to decide which show best meets their needs. The reason researchers primarily focus on pre-show evaluation with visitors may be because they do not spend as much money on and effort associated with trade shows as do exhibitors. Furthermore, for visitors, their primary motivations to participate in trade shows are to gather information about market access, be exposed to new products, and meet potential suppliers (Munuera & Ruiz, 1999), as well as make alternative purchases (Godar & O’Connor, 2001). What really
matters for visitors is participating in the right show and meeting the right people. Thus, the pre-show evaluation and selection process, rather than trade show performance evaluation, is more important with visitors.

In a recent study conducted by Berne and García-Uceda (2008), three major criteria were identified as the main determinants of trade show performance among visitors: perception about the basic features of the trade show, the marketing objectives to be attained at and after a trade show, and the perceived costs relative to trade show attendance planning and budgeting. Munuera and Ruiz (1999) analyzed visitor-oriented pre-show evaluation from a different perspective. They considered trade shows as services (e.g., accommodations, entertainment) offered by trade show organizations, with visitors as clients. Cox (1983) pointed out that visitors’ poor overall perception of a trade show is often attributable to exhibitors’ booth personnel problems (Jung, 2005).

There has been extensive research on the objectives of trade show visitors. Similar to exhibitors, how these objectives are achieved determine visitors’ perception of self-performance (Godar & O’Connor, 2001). Morris (1988) identified five main objectives for visitors attending a trade show: to see new products and developments, interest in the specific field or focus (e.g., sports, electronics) of the show, to see a particular product or company, to attend training sessions, and to obtain technical information about products. Following the same line of research, Dudley (1990) found that visitors attend trade shows to assess new products, to obtain product and technical information, to meet and compare potential suppliers, and to gain new ideas. More recently, Godar and O’Connor (2001) identified groups of visitors based on their motivations for attending trade shows and labeled them short-term and long-term buyers, prospective buyers, current buyers, and
non-buyers. While buyer activities relate to buying goods and/or services at the trade show, non-buyer activities have been conceptualized as ongoing information search, networking, and attending seminars (Rittichainuwat & Mair, 2012). It is important to note that trade show visitors are more likely to be non-buyers (Borghini, Golfetto, & Rinallo, 2006; Kepf & Smith, 1998). This is echoed by the decreasing importance of selling activities reported by exhibitors (Bello & Lohtia, 1993; Hansen, 1999).

While visitors’ satisfaction with their self-performance is important, so too is their satisfaction with other key stakeholders. Following is a summary of literature that has addressed the link between visitors and exhibitors and visitors and organizers.

The Links between Visitors and Key Stakeholders

The Visitor-Exhibitor Link

Trade shows are a great platform for visitors and exhibitors to develop new business relationships and work on existing business relationships (Blythe, 2002). Similar to the studies on exhibitor’s self-performance, selling activities were the primary focus of early studies on the visitor-exhibitor link (Bello, 1992; Gopalakrishna & Lilien, 1995; Tanner & Chonko, 1995; Williams, Gopalakrishna, & Cox, 1993). Researchers assumed that finding business partners and signing contracts were the only objectives of trade show visitors and exhibitors. Today, researchers have found that getting sales is no longer the primary goal of exhibitors and visitors (Seringhaus & Rosson, 2004). Godar and O’Connor (2001) found that visitors placed less importance on purchase activities while prioritizing non-sales activities such as information search and relation building with
exhibitors. The shift from sales activities to non-sales activities requires visitors and exhibitors to reexamine their trade show strategies and focus on behavioral-based activities such as information-gathering and relationship-building (Borghini et al., 2006; Hansen, 1999).

The Visitor-Organizer Link

For trade show organizers, the success of a trade show depends not only on the exhibitors, but also on the visitors (Munuera & Ruiz, 1999). A visitor at a trade show could have achieved preset goals and had great interactions with exhibitors but still have an overall negative perception of the trade show if the organizers fail to impress. Under conditions of increased competition and demands from exhibitors, trade show organizers have started to focus on attracting and serving not only exhibitors but also visitors.

In order to provide excellent service to and initiate positive behavioral intentions from visitors, trade show organizers need to consider visitors’ decisions regarding the location, schedule, and events for the trade show and provide optimal environmental conditions for interactions between exhibitors and visitors (Munuera & Ruiz, 1999). Furthermore, trade show organizers need to have better knowledge of visitors’ objectives for attending the trade show. Knowing the objectives of visitors would allow organizers to allocate their limited resources on the key areas that visitors value the most.

Ongoing information search is an important motivation for attendance at trade shows (Borghini et al., 2006). This ongoing information search involves comparing companies in order to establish contacts for future sales and observing what large institutions are doing (Smith, Hama & Smith, 2003; Tanner, Chonko, & Ponzurick,
Ongoing information search activities allow trade show visitors to confirm the viability of their own business and their ability to compete in the market (Blythe, 2002; Rittichainuwat & Mair, 2012). Thus, apart from focusing on providing excellent communication channel between visitors and exhibitors, trade show organizers also need to facilitate visitors’ ongoing information search.

The links between visitors and key stakeholders, which were addressed in this section, are highlighted in the proposed VEO framework for trade show evaluation (Figure 1). So, too, is the link between exhibitors and the organizer, which is reviewed in the following section.

**The Exhibitor-Organizer Link**

It has been demonstrated that trade shows have a substantial service component, with exhibitors and visitors being the customer and organizers being the service provider (Konopacki, 1996; Munuera & Ruiz, 1999; O’Hara & Herbig, 1993). Thus, the link between exhibitors and organizers corresponds to exhibitors’ perception of service quality delivered by organizers.

Brady and Cronin’s (2001) multi-level model of service quality proposes that interaction quality, environment quality, and outcome quality are the three dimensions that influence perceptions of service quality. This framework has been applied in a trade show context by Gottlieb et al. (2011), who developed a measurement model to examine trade show participants’ perceptions of trade show effectiveness. Gottlieb et al. (2011) found that the multi-level model of service quality works well in trade shows and all three dimensions contribute significantly to trade show effectiveness.
Thus far the literature reviewed suggests that visitors and exhibitors take into account various factors when assessing their self-performance as well as their satisfaction with other key stakeholders. Unclear, however, is to what extent their level of satisfaction with their self-performance or that of other key stakeholders influences overall satisfaction or positive behavioral intention. Following is a review of the literature on both variables.

**Satisfaction**

Satisfaction is a function of consumer perceptions (Neal & Gursoy, 2008). In tourism research, tourist satisfaction has been defined as the comparison between a tourist’s experience at the destination area and the expectations the tourist has about that destination (Schofield, 2000). Tourism researchers have used several approaches to examine tourist satisfaction, including expectation and disconfirmation theory (Cardozo, 1965); equity theory (Oliver & Swan, 1989); norm theory (LaTour & Peat, 1979); and the perceived performance model (Tse & Wilton, 1988).

The most prevalent theory guiding satisfaction research in tourism is expectancy–disconfirmation, originally developed by Cardozo (1965). According to this theory, consumers have expectations about a product prior to purchase. They then compare their actual experience with their previous expectations. If the actual experience is better than previous expectations, there would be positive disconfirmation, which means that the consumer is satisfied and might be willing to purchase the product again. If the actual experience is worse than expected, it would be referred to as negative disconfirmation, which means that the consumer is unsatisfied and might consider switching or actually
switch to other products in the future (Oliver, 1980). The major problem with this approach is that in some cases researchers have found that consumers’ expectations are not related to satisfaction (Tse & Wilton, 1988) and thus it might be a waste of time to collect information on expectations.

According to equity theory, consumer satisfaction can be viewed as a relationship between what the consumer spends and the benefits he/she anticipates (Oliver & Swan, 1989). Here, reality rather than expectation is compared with the experience. If the benefits exceed the costs, consumers are likely to be satisfied (Heskett, Sasser, & Schlesinger, 1997). Equity theory is often difficult to apply in the trade show setting because it is hard to compare the costs (e.g., time, money, and labor) exhibitors spend on the trade show against the benefits (e.g., sales made, sales leads obtained, and information collected) because they are measured very differently.

LaTour and Peat introduced norm theory in 1979. They considered norms as the reference for judging the product/service, and disconfirmation with these norms to be “dissatisfaction.” This theory is a modification of the expectancy–disconfirmation theory. In this case, norms take the place of expectation. The application of this theory, however, is problematic if there is no well-established norm within the field.

Tse and Wilton (1988) introduced a perceived performance model. They argued that consumer dissatisfaction is only a function of the actual performance, regardless of consumers' expectations. This model claims that measuring perceived expectations and perceived performance is redundant and only objective performance leads to satisfaction (Neal & Gursoy, 2008). This model is suitable for consumers who do not know what they want to obtain and experience. However, most of the visitors and exhibitors in trade
shows have strong motives and specific objectives.

In the trade show industry, where costs and benefits are measured using completely different scales, customers have clear objectives, and norms are not prominent, the expectancy–disconfirmation framework is the best option for studying satisfaction. This study will use a subjective measurement of trade show exhibitors’ perception of their performance minus their expectation to obtain data on satisfaction.

Most studies on satisfaction in the trade show context have focused on overall satisfaction (Lee & Back, 2009). The major problem with using overall satisfaction is that it does not address the specific domains of satisfaction and, as a result, corresponding managerial implications are limited. There might be several factors that contribute to the exhibitor’s unsatisfactory experience. Without knowing the satisfaction levels associated with specific domains of the trade show, organizers would have no idea how to fix the problem. Hence, in this study satisfaction with self-performance as well as other key stakeholders will be addressed.

**Behavioral Intention**

Findings from previous studies indicate that consumer satisfaction leads to positive behavioral intention from customers such as willingness to return and positive word-of-mouth (Cronin & Taylor, 1992; Dube, Renaghan, & Miller, 1994; Jung, 2005; Kang & Schrier, 2011). A satisfied visitor may spread positive word-of-mouth to potential visitors, thus contributing to the improved perceptions of the trade show as well as the host destination (Tanford, Montgomery, & Nelson, 2012; Zhang et al., 2010). Similarly, satisfied exhibitors are more likely to return to a trade show in the future if the
risk of uncertainty as to whether their exhibition will be successful or not has been reduced (Kang & Schrier, 2011; Patterson & Spreng, 1997).

However, a high satisfaction level does not guarantee a revisit. Gitelson and Crompton (1984) pointed out that although satisfaction with a particular destination could be a necessary condition for explaining repeat visits, it is not sufficient to explain the phenomenon since many respondents report a high satisfaction level and yet do not return to the same destination. Factors other than satisfaction may have direct influence on intention to revisit. By obtaining information about attendee's willingness to return and positive word-of-mouth, trade show organizers may obtain a more accurate estimate of the potential of future trade shows. Thus, positive behavioral intention will be used to measure the predictive validity of the proposed measurement scale and overall merits of the VEO framework.

In summary, a VEO conceptual framework was proposed to account for the significant roles of all three key stakeholders in a trade show context. Then five components of the VEO framework were discussed. Recognizing that there are outcomes of satisfaction with self-performance and that of other key stakeholders, a review of the literature on satisfaction and positive behavioral intention ensued. The result is an extended VEO framework (Figure 2) that represents the theorized links between satisfaction with self-performance, organizers, and visitors as components of overall satisfaction and positive behavioral intention. The potential direct impacts of the three satisfaction dimensions on positive behavioral intention will also be examined. Although the VEO framework could be used to examine trade show performance of all three key stakeholders, this study will focus only on constructing and empirically examining
exhibitors’ satisfaction and positive behavioral intention.

Figure 2. VEO framework on exhibitors’ performance evaluation

Study Objectives and Hypotheses

The specific objectives of the study are to: 1) propose a trade show performance evaluation framework that accounts for the relationships between visitors, exhibitors, and organizers; 2) construct a measurement scale on exhibitors’ satisfaction based on the proposed conceptual framework; and 3) examine the relative importance of each dimensions in the measurement scale. Chapter 3 will address the second objective while Chapter 4 focuses on the third objective. With respect to the first objective it is hypothesized in Chapter 2 that:
Hypothesis 1a: Exhibitors' satisfaction with visitors is positively related to their overall satisfaction with the trade show.

Hypothesis 1b: Exhibitors' satisfaction with self-performance is positively related to their overall satisfaction with the trade show.

Hypothesis 1c: Exhibitors' satisfaction with organizers is positively related to their overall satisfaction with the trade show.

Hypothesis 2a: Visitors' satisfaction with self-performance is positively related to their overall satisfaction with the trade show.

Hypothesis 2b: Visitors' satisfaction with exhibitors is positively related to their overall satisfaction with the trade show.

Hypothesis 2c: Visitors' satisfaction with organizers is positively related to their overall satisfaction with the trade show.

Hypothesis 3: Exhibitors' overall satisfaction, determined by exhibitors’ satisfaction with visitors, self-performance, and organizers, is positively related to their positive behavioral intention.

Hypothesis 4: Visitors' overall satisfaction, determined by visitors’ satisfaction with self-performance, exhibitors, and organizers, is positively related to their positive behavioral intention.

**Methods**

Based on the VEO conceptual framework (Figure 2), a measurement scale was constructed and empirically tested. Two pilot tests were administered to examine the
reliability of the scale and to purify the scale. Finally, the measurement scale was applied, in the form of a questionnaire, at three international trade shows in the People's Republic of China.

**Scale Development**

*Exhibitor's satisfaction with self-performance*

Hansen’s (1999) research is regarded as one of the most well-organized and comprehensive studies on exhibitors’ self-performance (Seringhaus & Rosson, 2004). Based on Hansen’s five-dimension conceptual framework and the study context, a 7-point, 18-item scale (1= extremely poor, 7= extremely excellent) was created to enable exhibitors to document their self-performance. Exhibitors were asked to read through and rate their satisfaction with each of the self-performance statements highlighted in Table 1.

*Exhibitor’s satisfaction with organizers*

Brady and Cronin’s (2001) conceptual framework on service quality has been used in the trade show context and exhibited excellent reliability and validity (Gottlieb et al., 2011). After reviewing the framework and accounting for study context, a 7-point, 21-item scale (1= strongly disagree, 7=strongly agree) was used to enable exhibitors to indicate their level of agreement with 21 statements about organizers. Specifically, exhibitors were asked to read through the statements about organizers and rate their level of agreement with each statement (see Table 2).
Table 1. Statements on exhibitor’s self-performance

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>S1. Test new product concepts.</td>
</tr>
<tr>
<td></td>
<td>S2. Develop new product/market segments.</td>
</tr>
<tr>
<td></td>
<td>S3. Introduce and evaluate reactions to new products.</td>
</tr>
<tr>
<td></td>
<td>S4. Actual sales at the trade show to customers.</td>
</tr>
<tr>
<td>Information</td>
<td>IG1. Collect information about competitors’ prices, products, and strategies.</td>
</tr>
<tr>
<td>Gathering</td>
<td>IG2: Collect information in general.</td>
</tr>
<tr>
<td></td>
<td>IG3: Search for information about visitors.</td>
</tr>
<tr>
<td>Relationship</td>
<td>RB1. Strengthen relationships with existing customers.</td>
</tr>
<tr>
<td>Building</td>
<td>RB2: Build relationships with new customers.</td>
</tr>
<tr>
<td></td>
<td>RB3. Maintain contact with existing customers.</td>
</tr>
<tr>
<td></td>
<td>RB4. Develop contact with new customers.</td>
</tr>
<tr>
<td>Image Building</td>
<td>IB1. Demonstrate to customers that we are just as good as our competitors.</td>
</tr>
<tr>
<td></td>
<td>IB2. Enhance customers’ image of our company.</td>
</tr>
<tr>
<td></td>
<td>IB3. Convince customers that we are a strong and solid company.</td>
</tr>
<tr>
<td></td>
<td>IB4. Gain advantage over competitors who are not exhibiting.</td>
</tr>
<tr>
<td>Motivation</td>
<td>M1. Train and develop our sales team.</td>
</tr>
<tr>
<td></td>
<td>M2. Strengthen our sales people’s motivation (e.g., traveling abroad, break in daily routines, meeting customers at the show and outside the show area).</td>
</tr>
</tbody>
</table>

Exhibitor’s satisfaction with visitors

Based on Rosson and Seringhaus’ (1995) study on the interaction between exhibitors and visitors, a trade show evaluation survey used in previous studies, as well as the specific study context, a 7-point, 12-item performance scale (1 = extremely poor, 7 = extremely excellent) was used to enable exhibitors to indicate their level of satisfaction with visitors. Specifically, exhibitors were asked to read through the statements about visitors and rate their satisfaction with each of the statements (see Table 3).
Table 2. Statements on exhibitor’s satisfaction with organizers

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Construct</th>
<th>Statement</th>
</tr>
</thead>
</table>
| Interaction | Attitude | A1. You can count on the trade show organizers being friendly.  
A2. The attitude of the trade show organizers demonstrates their willingness to help me.  
A3. The attitude of the trade show organizers shows me that they understand my needs. |
| Behavior | | B1. I can count on the trade show organizers to address my needs.  
B2. The trade show organizers respond quickly to my needs.  
B3. The trade show organizers understand my needs. |
| Expertise | | E1. The trade show organizers know their jobs.  
E2. The trade show organizers are able to answer my questions quickly.  
E3. The organizers understand that I rely on their knowledge to meet my needs. |
| Environment | Ambient conditions | AC1. The trade show’s ambience is what I’m looking for in a trade show.  
AC2. The trade show organizers understand that the atmosphere at the show is important.  
AC3. The security provided by the organizers is excellent. |
| Design | | D1. This service provider’s layout never fails to impress me.  
D2. The trade show’s layout serves my purposes. |
| Social factors | | SF1. The trade shows’ other exhibitors consistently leave me with a good impression.  
SF2. The trade shows’ visitors consistently leave me with a good impression. |
| Outcome | Tangibles | T1. I am pleased with the quality of our booth.  
T2. I am pleased with the food provided by the organizers. |
| | Valence | V1. When I leave the trade show, I feel that I had a good experience.  
V2. The trade show organizers try to give me a good experience.  
V3. The trade show organizers know the type of experience exhibitors want. |
Table 3. Statements on exhibitor’s satisfaction with visitors

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job level</td>
<td>JL1. Overall job level of customers.</td>
</tr>
<tr>
<td></td>
<td>JL2. Job level of existing customers.</td>
</tr>
<tr>
<td></td>
<td>JL3. Job level of potential customers.</td>
</tr>
<tr>
<td>Job function</td>
<td>JF1. Overall job function of customers.</td>
</tr>
<tr>
<td></td>
<td>JF2. The fit of job function of customers to your specific needs.</td>
</tr>
<tr>
<td></td>
<td>JF4. Job function of potential customers.</td>
</tr>
<tr>
<td>Purchasing authority</td>
<td>PA1. Overall purchasing authority of customers.</td>
</tr>
<tr>
<td></td>
<td>PA2. Purchasing authority of existing customers.</td>
</tr>
<tr>
<td></td>
<td>PA3. Purchasing authority of potential customers.</td>
</tr>
<tr>
<td>Communication</td>
<td>C1. Amount of communication with customers.</td>
</tr>
<tr>
<td></td>
<td>C2. Quality of communication with customers.</td>
</tr>
</tbody>
</table>

**Content Validity**

To ensure content validity, three industry experts and one academic expert reviewed the 51 items that initially comprised the satisfaction dimensions (DeVellis 2012). The experts were provided with definitions of each dimension in order to avoid confusion and then asked to assess the representativeness of the items listed in each dimension. After receiving the experts’ constructive feedback, one item was deleted and three items were edited to better represent the proposed dimensions. Specifically, an item in the Motivation dimension (see Table 1) was deleted because of low content validity and three items in the Ambient Conditions dimension (see Table 2) were modified to better fit the specific situation in China.
Pilot Testing

Pilot Test 1

The first pilot test was conducted with data collected from 514 visitors and 92 exhibitors who attended SEMICON WEST, August 20 to September 9, 2009 in San Francisco. The intent of the pilot test was to determine if the VEO conceptual framework was viable and could be used in studies of exhibitors’ and visitors’ satisfaction, willingness to return, and positive word of mouth. Exhibitors were asked to indicate their level of satisfaction with contractor services, organizer’s customer service, and three characteristics of visitors using a 10-point Likert scale. They were also asked to indicate whether they would exhibit at the trade show in the future and whether they would recommend it to others. Visitors were asked to indicate their level of satisfaction with achieving preset objectives, organizers, and exhibitors. Results indicated that the VEO framework explains a sizeable percentage of the variance in exhibitors’ and visitors’ overall satisfaction and positive behavioral intention.

Pilot Test 2

To test the reliability of the measurement scale with exhibitors only, an on-site data collection protocol was pilot tested at the 10th China Household Electrical Appliances Trade Fair, August 22 - 24, 2013 in China. The fair hosted about 800 exhibitors and 45,000 visitors. Exhibitors were asked to indicate their level of satisfaction or agreement with each of the statements listed in Tables 1 through 3. The results of the pilot test led to the deletion of three items, resulting in a modified forty-six item scale (Appendix) on three dimensions of exhibitors’ satisfaction. The following questions were added to the survey used in the second pilot test in order to test the scale’s validity:
exhibitor’s satisfaction with self-performance, exhibitor’s satisfaction with organizers, exhibitor’s satisfaction with visitors, exhibitor’s overall satisfaction, willingness to return, word-of-mouth effect, respondent’s job ranking and function, and previous trade show experience.

**Scale Validation**

The modified measurement scale was applied at three additional trade shows to further examine its validity and reliability. Confirmatory factor analysis (CFA) was used to examine the 46 items theoretically comprising the 3 dimensions of satisfaction, and to create a robust and parsimonious scale. Robustness is achieved if a large amount of variance of exhibitors’ positive behavioral intentions is explained. Parsimonious is attained if the scale captures the essence of exhibitors’ trade show performance and positive behavioral intentions and consists of a small number of items that can easily be applied by trade show professionals. Convergent validity, discriminant validity, and predictive validity were examined to examine the validity of the measurement scale and to make sure that the scale captured the essence of exhibitors’ performance.

**Sampling**

Data for the study were collected at trade shows in China. Exhibitors at three trade shows (Table 4) were asked to participate in the study.
Table 4. Trade shows accessed in this study

<table>
<thead>
<tr>
<th>Trade show</th>
<th>Date &amp; location</th>
<th>Frequency &amp; edition</th>
<th>Exhibition area</th>
<th>No. of exhibitors</th>
<th>No. of visitors</th>
</tr>
</thead>
<tbody>
<tr>
<td>China International Games &amp; Amusement Fair</td>
<td>Oct. 25-27, 2013; Zhongshan, China</td>
<td>Annually; 6th</td>
<td>44,000</td>
<td>260</td>
<td>20,000</td>
</tr>
<tr>
<td>China International Game &amp; Amusement Exhibition</td>
<td>Mar. 1-3, 2014; Guangzhou, China</td>
<td>Annually; 9th</td>
<td>80,000</td>
<td>350</td>
<td>20,000</td>
</tr>
<tr>
<td>China Household Electrical Appliances Trade Fair</td>
<td>Mar. 12-15, 2014; Zhongshan, China</td>
<td>Six-monthly; 11th</td>
<td>45,000</td>
<td>850</td>
<td>80,000</td>
</tr>
</tbody>
</table>

**Final Data Collection Method**

Data were collected on site through surveys with exhibitors. The advantage of this method is the high response rate. It is more difficult to turn down a survey request in person than on the Internet (Baruch, 1999). A target number of responses (n=750) was pre-determined based on the number of total exhibitors expected at the three trade shows. For every exhibiting company approached, the on-site personnel with the highest ranking were asked to fill out the questionnaire until the target number was reached. Overall, there was a 79.2% response rate.

To maximize the quality of the resulting data, trade show staff were provided instructions regarding face-to-face interviewing. The staff were given a script and told to strictly follow it when surveying exhibitors. They were also asked to keep their opinions to a minimum.
Survey Data Analysis Procedures

Confirmatory Factor Analysis (CFA) and the Maximum Likelihood Method (MLM) of estimation were used to examine the proposed models and test the hypotheses. Structural equation modeling is designed to evaluate how well a proposed conceptual model fits the collected data (Yoon, Gursoy, & Chen, 2001) and measure the relationships among sets of construct variables (Turner & Reisinger, 2001; Yoon & Uysal, 2005). Thus, the structural equation modeling procedure is an appropriate solution for the proposed models. Correlation matrices, standard deviations, and goodness-of-fit statistics were reported to examine the hypothesized models. In order to compare different paths, standardized solutions were used to report the results. Model fit was evaluated with three goodness-of-fit indices: the comparative fit index (CFI; Bentler, 1990); the root-mean-square error of approximation (RMSEA; Steiger, 1990); and the Tucker-Lewis index (TLI; Tucker & Lewis, 1973). Minimum TLIs and CFIs of .90 are required for model acceptance, and values of .95 or greater are regarded as an indication of good model fit. RMSEAs of less than .06 are indicators of a good-fitting model (Hu & Bentler, 1998).

To confirm the reliability of the model, Cronbach’s alpha was calculated. A value higher than .70 is considered acceptable (Nunnally, 1978). To establish convergent validity, path coefficients were examined for significance and Cronbach’s alpha was also used as a proxy for convergent validity. Thus, a high Cronbach’s alpha not only indicates a satisfactory reliability but also a satisfactory convergent validity.
Convergent validity was examined by looking at the significance of item loadings on their respective hypothesized dimensions (Anderson & Gerbing, 1988). To establish discriminant validity, two SEM models were run, one with the relationships between constructs fixed to be one and the other one with free parameters. A chi-square test was conducted to test the difference between the two models. Discriminant validity was established if the chi-square test turns out to be significant (Anderson & Gerbing, 1988; Bagozzi & Heatherton, 1994). Predictive validity is defined as the ability of the scale to estimate an outcome variable that is external to the measuring instrument itself (Nunally & Bernstein, 1994). To establish the predictive validity of the measurement scale, the endogenous latent variable behavioral intent with two observed variables (i.e., willingness to return and word-of-mouth) was added to the structural equation. The standardized path coefficients and squared multiple correlation were examined to establish the predictive validity of the scale.

Apart from scale development and validation, the relationships between the three dimensions (i.e., satisfaction with self-performance, satisfaction with visitors, and satisfaction with organizers) and overall satisfaction and positive behavioral intention were also examined. Multiple hypotheses were proposed on the structure of exhibitor’s satisfaction and positive behavioral intention. The strength of the standardized path coefficients was used to examine the hypotheses and indicate the importance of certain domains. The potential direct impact of the three dimensions on positive behavioral intention was also examined.
Presentation of Results

The following three chapters highlight the results of this dissertation. In Chapter 2 I propose the Visitor-Exhibitor-Organizer (VEO) framework and empirically examine it through testing with 92 exhibitors and 514 visitors at a trade show in San Francisco, California. In Chapter 3 I review the results of a second pilot test. In this instance, the focus was on testing the reliability and validity of a measurement scale adhering to the VEO framework and designed for exhibitors only. Data were collected from exhibitors at a trade show in China. In Chapter 4 the modified version of the measurement scale tested during the second pilot test was again applied in a trade show context to examine relationships between the three satisfaction dimensions and positive behavioral intention. These data were also used to answer the study hypotheses.

The final chapter (i.e., Chapter 5) provides a summary of the results presented in Chapters 2 through 4. A discussion of the overall findings, limitations, and potential for future research also are included in this chapter.

REFERENCES


Chapter 2

Chapter 2 was written as an independent manuscript for submission to the peer-reviewed Journal of Convention & Event Tourism. It was formatted per the specifications of the journal. As an exploratory study, this manuscript intends to demonstrate the importance of accounting for key stakeholders in the trade show industry. Chapter 3 follows up by developing a measurement instrument with specific items on exhibitors’ satisfaction.

The purpose of this study was to propose and examine a three–component conceptual framework that could be used by trade show organizers to measure their customers’ (i.e., exhibitors and visitors) satisfaction. After a review of previous literature on trade show performance evaluation, the VEO framework was proposed to account for the intricate relationships between three key stakeholders (i.e., exhibitors, visitors, organizers) in trade shows. Based on the VEO framework, an exhibitor and a visitor performance evaluation model were constructed and tested using data from 92 exhibitors and 514 visitors. The results validated the VEO framework by indicating that it is not adequate to focus on one stakeholder when evaluating trade show performance. Visitors, exhibitors, and organizers are closely connected and their satisfaction levels and behaviors interact with one another.
Chapter 2 A Three-Component Framework for

Trade Show Organizers’ Performance Evaluation

Introduction

Customer satisfaction, one of the most studied constructs in tourism (Gursoy, McCleary & Lepsito 2007; Neal & Gursoy, 2008), reflects the perceived quality of products or services (Pizam & Ellis, 1999), and is considered essential for the survival of all tourism businesses (Berkman & Gilson, 1986). Researchers have shown that customer satisfaction can lead to positive word-of-mouth (Zhang, Qu, & Ma, 2010), higher profitability (Kang & Schrier, 2011), and intention to return (Bowen & Chen, 2001; Jung, 2005), all of which are treated as indicators of business performance. Much of the research employing these indicators has been conducted with customers and ignored other, equally important, stakeholders (Lee & Back, 2009). This myopic approach to customer satisfaction is especially problematic in one segment of the tourism industry—trade shows (Harris, 2000), which is comprised of three key stakeholders—visitors, exhibitors, and organizers (Jin, Weber, & Bauer, 2012).

While the relationships between visitors, exhibitors, and organizers have been acknowledged (Bruhn & Hadwich, 2005; Jin & Weber, 2013), researchers have focused on one of the key stakeholders and ignored its interactions with the others (e.g., Berne & García-Uceda, 2008; Gopalakrishna & Lilien, 1995; Hansen, 1999; Reinhold, Reinhold, & Schmitz, 2010). Exceptions include studies by Herbig, O’Hara, and Palumbo (1997), Munuera and Ruiz (1999), and Jin et al. (2012). These authors accounted for the
interactions between two groups and the impacts of the interactions on trade show performance. No studies on the intricate relationships between all three key stakeholders exist. Thus, the objectives of this paper are to: 1) propose a three-component trade show performance evaluation framework that accounts for the relationships between visitors, exhibitors, and organizers and 2) empirically examine the proposed conceptual framework.

**Literature Review**

**Stakeholder theory and key stakeholders in trade shows**

The origins of stakeholder theory draw on four key academic fields – sociology, economics, politics and ethics (Mainardes, Alves, & Raposo, 2011). According to Freeman (1984), businesses must account for their relationships with the key stakeholders in their external environment. The goal of stakeholder theory is to help organizations realize, analyze, and examine the characteristics of individuals or groups influencing or being influenced by organizational behavior (Mainardes et al., 2011).

In the context of trade shows, there are three key stakeholders: visitors, exhibitors, and organizers (Jin et al., 2012). Understanding the three key stakeholders could allow trade show organizers to provide better service and attract more exhibitors and visitors to their shows. In order to achieve this goal, knowing the behaviors of exhibitors and visitors and why and how they make certain decisions is important. This information helps trade show organizers modify their marketing campaign to better cater to the needs
of the exhibitors, attract more visitors, and allow organizers to gain a strategic advantage in the marketplace (Oppermann & Chon, 1997). The fast development of the trade show industry allows both exhibitors and visitors to choose from many different trade shows, all of which are experiencing a high level of competition and pressure to consider differentiation strategies (Berne & García-Uceda, 2008). To survive in this competitive environment, organizers need to guarantee a trade show's potential to attract a large number of exhibitors and visitors (Cox, Sequeira, & Bock, 1986).

Exhibitors tend to be interested in well-organized trade shows with high quality visitors, while visitors want to meet with an adequate number of exhibitors and to obtain relevant information through organizers. Jago and Deery (2005) conducted semi-structured interviews to explore the relationships between visitors, organizers, and international associations in the convention industry. They argued that most studies on convention site selection have ignored the impact of the relationships between the three key stakeholders. The same argument could apply to trade show performance evaluation. Most researchers have only incidentally touched upon the intricate relationships between the three key stakeholders of a trade show; they have failed to recognize the importance of all three key stakeholders and how their interactions impact their own satisfaction and positive behavioral intention. Thus, this study intends to construct and validate a Visitor-Exhibitor-Organizer (VEO) conceptual framework that emphasizes the relationships between these three stakeholders when conducting trade show performance evaluation (Figure 1). The arrows connecting visitors, exhibitors, and organizers indicate that there are interactions taking place between all three stakeholders in a trade show context and that their satisfactions and behaviors influence each other. It can be argued that visitors’
and exhibitors’ overall satisfaction with a trade show consists of three components: satisfaction with self-performance and satisfaction with the other two key stakeholders, respectively. In other words, a visitor’s satisfaction with trade show organizers and exhibitors, along with his/her satisfaction with self-performance, will determine his/her overall satisfaction with a trade show experience. Similarly, an exhibitor’s satisfaction with trade show organizers and visitors, along with his/her satisfaction with self-performance, will determine his/her overall satisfaction with a trade show experience. The VEO framework could be used by trade show organizers to better understand the decision-making process of visitors and exhibitors and make managerial changes to improve their satisfaction and positive behavioral intention. Trade show visitors and exhibitors could also use the VEO framework to determine whether or not to attend a trade show in the future.

Figure 1. Proposed VEO framework on trade show evaluation
**Trade show performance evaluation**

Evaluation research has been divided into three major areas: 1) analysis related to conceptualization and design (i.e., formative evaluation); 2) monitoring of program implementation (i.e., process evaluation); and 3) assessment of program effectiveness and efficiency (i.e., summative evaluation; Pearlman & Mollere, 2009; Rossi & Freeman, 1989). Trade show performance evaluation falls under the summative evaluation category and its focus is to assess the effectiveness of management and administration and provide recommendations for improvement.

There are two major lines of research on trade show performance evaluation, i.e. exhibitor-oriented and visitor-oriented. Hansen’s (2004) work is one of the most well-organized and comprehensive among the studies conducted on trade show evaluation from an exhibitor’s perspective (Seringhaus & Rosson, 2004). Hansen argues that show performance, which has traditionally been evaluated using outcome-based measures, ignores behavior-based measures. Thus, he set up a preliminary trade show performance construct, which included one outcome-based dimension (sales-related activities) and four behavior-based dimensions (information-gathering activities, image-building activities, motivation activities, and relationship-building activities). Apart from relationship-building activities, the other four dimensions are mostly about the exhibitors’ perception of self-performance. The role of organizers and visitors is largely missing in Hansen’s framework. In a more recent study, Li (2007) focused on the relationship learning process at a trade show between exhibitors and visitors. Li contended that learning could occur between exhibitors and visitors and that it had a
powerful influence on the performance outcomes as perceived by exhibitors. Although the relationship between visitors and exhibitors was emphasized in Li’s study, the other two interrelationships (visitors and organizers; exhibitors and organizers) were unaccounted for.

The visitor-oriented trade show evaluation literature has primarily focused on the expected benefits of trade shows for visitors. Munuera and Ruiz (1999) suggested that trade shows provide a necessary platform for the business relationship between trade show organizers and visitors. Organizers offer various services, such as accommodation, entertainment, and business services, and the visitors are the buyers of those services. Berne and García-Uceda (2008), on the other hand, argued that visitors assess the performance of a trade show based on their perception of the basic features of the trade show, attainment of marketing objectives prior to and after a trade show, and the perceived costs relative to trade show attendance planning and budgeting. These three criteria do not account for the dynamic interactions between visitors and the other two key stakeholders at a trade show. Cox (1983) pointed out that visitors’ poor overall perception of a trade show is often attributable to problems with the personnel at exhibitors’ booths or, more specifically, when visitors fail to connect with the right types of booth personnel (Jung, 2005). These results suggest that the relationship between visitors and exhibitors (i.e., exhibitors’ ability to attract and connect with visitors and visitors’ knowledge of the exhibits) is a significant predictor of visitors’ overall satisfaction.

Although the role of organizers has been mentioned in the literature (e.g., Berne & García-Uceda, 2008; Munuera & Ruiz, 1999) and the management and marketing issues
facing organizers are crucial to the success of any trade show, few researchers have
conducted systematic trade show evaluations from the organizer’s perspective.

Organizers are the main propeller of the trade show industry and, as such, play an
important role in the success of the industry. Berne and García-Uceda (2008) suggest
that increased competition between trade show organizers will force them to differentiate
themselves by offering user-oriented services. They also need to conduct trade show
evaluations that will help them obtain more information from visitors and exhibitors to
evaluate their own performance and guide their future improvement. In order to stay
competitive, organizers need to have good relationships with visitors and exhibitors and
create a favorable environment for interactions between visitors and exhibitors.

A primary objective of trade show organizers is to create effective shows that result
in positive outcomes for both exhibitors and visitors. However, the amount of research
into what makes an effective trade show and what contributes to visitors’ and exhibitors’
satisfaction is limited (Gottlieb, Brown, & Drennan, 2011). Few researchers have
analyzed trade show evaluation systematically from the organizer’s perspective. Thus,
the VEO conceptual framework (Figure 1) will be invaluable to organizers interested in
evaluating visitors’ and exhibitors’ overall satisfaction with a trade show.

**Satisfaction**

Overall satisfaction has been used extensively in trade show studies (e.g., Kang &
Schrier, 2011; Lee & Back, 2009; Oh, 2000). Although it is valuable to know customers’
(i.e., visitors and exhibitors) overall satisfaction, the major problem with using an
overall satisfaction measure is that it does not address the specific dimensions of satisfaction and, as such, is of limited value to managers.

For visitors and exhibitors, being satisfied with a trade show could lower uncertainty, increase intention to return, and minimize other constraints to participation in future trade shows. However, there is a lack of comprehensive research concerning trade show participation behavior and overall satisfaction levels (Pearlman & Mollere, 2009). Previous literature on visitor and exhibitor overall satisfaction with trade shows has focused on one or two stakeholders and ignored the interactions between all three stakeholders. Studies on exhibitors’ satisfaction and positive behavioral intention have focused on exhibitors’ self-performance and/or the interactions between exhibitors and visitors (Jin et al., 2012; Li, 2007). Few studies have included the role of organizers in shaping exhibitors’ satisfaction and positive behavioral intention along with visitors and their self-performance. In order to validate the VEO framework (refer to Figure 1), the specific dimensions need to be positively related to overall satisfaction with the trade show. Thus, the following hypotheses are proposed:

Hypothesis 1a: Exhibitors' satisfaction with visitors is positively related to their overall satisfaction with the trade show.

Hypothesis 1b: Exhibitors' satisfaction with self-performance is positively related to their overall satisfaction with the trade show.

Hypothesis 1c: Exhibitors' satisfaction with organizers is positively related to their overall satisfaction with the trade show.

Hypothesis 2a: Visitors' satisfaction with self-performance is positively related to their overall satisfaction with the trade show.
Hypothesis 2b: Visitors' satisfaction with exhibitors is positively related to their overall satisfaction with the trade show.

Hypothesis 2c: Visitors' satisfaction with organizers is positively related to their overall satisfaction with the trade show.

**Behavioral intention**

Behavioral intention refers to the stated likelihood to engage in a particular behavior (Oliver, 1980). Researchers have documented that consumer satisfaction leads to positive behavioral intention, such as willingness to return and positive word-of-mouth (Cronin & Taylor, 1992; Dube, Renaghan, & Miller, 1994). When the two behavioral components are favorable, customers indicate that they are likely to revisit the service provider and spread positive reviews to others. When the two behavioral components are negative, the opposite behaviors are likely to occur (Jani & Han, 2011; Peter & Olson, 2003).

Jung (2005) and Kang and Schrier (2011) found that trade show visitors’ satisfaction has a positive influence on their intention to revisit and to positively comment on their experience. These positive outcomes contribute to an improved perception of the trade show and the host destination (Tanford, Montgomery, & Nelson, 2012; Zhang et al., 2010). Patterson and Spreng (1997) and Kang and Schrier (2011) found that exhibitors were more likely to return to a trade show in the future if the risk of uncertainty (e.g., whether their exhibition will be successful) had been reduced.

However, it is important to note that a high satisfaction level does not guarantee
revisitation. Although satisfaction with a particular destination could be a necessary condition for explaining repeat visits, it is not sufficient to explain the phenomenon since many respondents report a high satisfaction level and do not return to the same destination (Gitelson & Crompton, 1984; Kozak, 2001). Other factors that influence intent to revisit include past experience with the destination (Gitelson & Crompton, 1984) and travel motivations (Yoon & Uysal, 2005). Given the fact that these other factors influence individuals’ intent to revisit, trade show organizers may want to obtain information about attendee's intention to revisit and their willingness to say positive things about the trade show. After all, organizers have to ensure that they can attract enough attendees over time to survive in the increasingly competitive trade show industry.

Securing repeat visitation is important for sustaining the competitiveness of trade shows. Repeat visitors are more likely to spend more money, to return, and to recommend the event to others compared to first-time visitors (Shani, Rivera, & Hara, 2009). Thus, studying behaviors of repeat visitors will elicit invaluable market information for a trade show attempting to maintain its competitive edge (Huang & Hsu, 2009) and increase the number of repeat customers. On the other hand, in order to attract new customers, trade show organizers need to facilitate positive word-of-mouth (Rosson & Seringhaus, 1995). Previous studies have only used satisfaction with one key stakeholder to predict positive behavioral intention (e.g., Kang & Schrier, 2011); they have not considered the impacts of all three key stakeholders. No matter how many sales leads exhibitors get during a trade show, if their booths were damaged due to organizers’ negligence, they might not be satisfied with their overall experience and might choose to
skip the trade show the next year. Similarly, visitors might enjoy the most meticulous
service from the organizer, but if they did not meet enough exhibitors, the whole
experience would be considered unsatisfactory, leading to negative word-of-mouth.
Thus, this study intends to examine the key components that determine trade show
visitors’ and exhibitors’ satisfaction and positive behavioral intention based on the VEO
framework where all three key stakeholders are represented (Figures 2 and 3). Keeping
this intention in mind, an exhibitor model and a visitor model were constructed and the
following hypotheses were proposed:

Hypothesis 3: Exhibitors' overall satisfaction, determined by exhibitors’ satisfaction
with visitors, self-performance, and organizers, is positively related to their positive
behavioral intention.

Hypothesis 4: Visitors' overall satisfaction, determined by visitors’ satisfaction with
self-performance, exhibitors, and organizers, is positively related to their positive
behavioral intention.

Figure 2. VEO framework on exhibitor evaluation
Methodology

Data collection

The purpose of this study was to examine the VEO conceptual framework on exhibitors and visitors’ satisfaction and how it influences positive behavioral intention. To test the VEO conceptual framework, an exhibitor survey and a visitor survey at the same trade show were processed and analyzed. The data were collected at SEMICON West 2009, which is the leading trade show in the semiconductor industry. SEMICON WEST 2009 was held in San Francisco from July 14 to July 16, 2009. An on-line survey system was established to collect data. To drive traffic to the on-line survey, SEMI (the organizer) reminded exhibitors and visitors during customer outreach visits, in the trade
show exhibitor update, and in an e-mail follow-up newsletter to complete the on-line survey. In order to achieve anonymity and elicit honest feedback, no demographic information was collected. The time period for the visitors and exhibitors to submit responses was from August 20 to September 9, 2009.

**Instrument**

Satisfaction was measured on a 10-point Likert scale ranging from “extremely unsatisfied” (1) to "extremely satisfied” (10). Exhibitors were asked to indicate their overall satisfaction with contractor services and their overall satisfaction with organizer’s customer service. Exhibitors' satisfaction with visitors was measured on three aspects of visitors’ job level, purchasing authority, and job function using a 10-point Likert scale.

Previous studies on exhibitor trade show performance evaluation have mainly focused on motivations to participate (Barczyk, George, & William, 1989; Montgomery & Strick, 1995). In this study, satisfaction with achieving goals at the trade show was used to measure self-performance. Specifically, exhibitors were asked how satisfied they were in meeting their objectives at the trade show and their overall satisfaction with the trade show on a 10-point Likert scale.

Willingness to return and positive word-of-mouth were used as measures of exhibitors’ behavioral intention (Ainscough, 2005; Kim, Lee, & Yoo, 2006). Specifically, exhibitors were asked to provide yes or no answers to the following questions: 1) “Would you exhibit at this trade show in the future?” and 2) “Would you
recommend this trade show to other companies?”

A single item on a 10-point Likert scale was used to measure visitors’ satisfaction with organizers, exhibitors, and self-performance, respectively. Visitors’ overall satisfaction was assessed by asking individuals to “please rate your overall satisfaction with this trade show.” Behavioral intention was measured by asking visitors to provide yes or no answers to the following questions: “Would you attend this trade show in the future?” and 2) “Would you recommend this trade show to others?”

**Data analysis**

Data were entered into SPSS 21.0 and AMOS 21.0. Structural equation modeling (SEM) and the Maximum Likelihood Method (MLM) of estimation were used to examine the proposed models and test the hypotheses. SEM is designed to evaluate how well a proposed conceptual model fits the collected data (Yoon, Gursoy, & Chen, 2001) and measure the relationships among sets of construct variables (Turner & Reisinger, 2001; Yoon & Uysal, 2005). The SEM procedure was considered to be an appropriate solution for the proposed models. Correlation matrices, standard deviations, and goodness of fit statistics were utilized to examine the hypothesized models in SEM. In order to compare different paths, standardized solutions were utilized to report the results. Model fit was evaluated with three goodness-of-fit indices: the comparative fit index (CFI; Bentler, 1990), the root-mean-square error of approximation (RMSEA; Steiger, 1990), and the Tucker-Lewis index (TLI; Tucker & Lewis, 1973). Minimum TLIs and CFIs of .90 were required for model acceptance, and values of .95 or greater
were regarded as an indication of good model fit. RMSEAs of less than .06 were indicators of a good-fitting model (Hu & Bentler, 1998).

**Results**

A total of 514 valid surveys were completed by visitors and 92 were completed by exhibitors. Correlation matrices of the exhibitor model and of the visitor model are presented in Tables 1 and 2. Most variables were significantly correlated with each other and in the expected direction. The Cronbach’s alphas were found to be at an acceptable level of .7 or higher, providing evidence of construct reliability.

The results of SEM provided support for the convergent validity of measures since estimated loadings for all indicators were significant at \( p < .01 \) (Anderson & Gerbing, 1988). In order to examine the measurement model, the goodness of fit indices for the proposed model were examined. The CFI, TLI, and RMSEA of the exhibitor model were within the accepted cut-off values \[ \chi^2 (23, N = 92) = 28.93, p = .18, \text{CFI} = .99, \text{TLI} = .98, \text{RMSEA} = .05 \] (Hu & Bentler, 1998). The variances of the satisfaction and positive behavioral intention constructs explained by exogenous variables (i.e., squared multiple correlation) ranged from .15 to .66. The standardized path coefficients are highlighted in Figure 4.
Table 1. Correlation Coefficients of the Exhibitor Model

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Sat. with contractor</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Sat. with staff service</td>
<td></td>
<td></td>
<td></td>
<td>.57**</td>
<td></td>
</tr>
<tr>
<td>3. Sat. with self-performance</td>
<td></td>
<td>.24**</td>
<td></td>
<td>.40**</td>
<td></td>
</tr>
<tr>
<td>4. Sat. with function</td>
<td>.19</td>
<td>.37**</td>
<td>.47**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Sat. with purchase</td>
<td>.06</td>
<td>.26*</td>
<td>.50**</td>
<td>.83**</td>
<td></td>
</tr>
<tr>
<td>6. Sat. with ranks</td>
<td>.14</td>
<td>.31**</td>
<td>.45**</td>
<td>.80**</td>
<td>.82**</td>
</tr>
<tr>
<td>7. Overall sat.</td>
<td>.33**</td>
<td>.54**</td>
<td>.83**</td>
<td>.55**</td>
<td>.52**</td>
</tr>
<tr>
<td>8. Word-of-mouth</td>
<td>.11</td>
<td>.28**</td>
<td>.53**</td>
<td>.48**</td>
<td>.45**</td>
</tr>
<tr>
<td>9. Willingness to return</td>
<td>-.02</td>
<td>.12</td>
<td>.43**</td>
<td>.23**</td>
<td>.23**</td>
</tr>
<tr>
<td>Mean</td>
<td>6.63</td>
<td>7.33</td>
<td>6.04</td>
<td>6.63</td>
<td>6.46</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>2.09</td>
<td>1.72</td>
<td>2.11</td>
<td>1.99</td>
<td>2.21</td>
</tr>
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</table>

Sat. = Satisfaction

Note: *p < .05, **p < .01. N=92

(Continued)

<table>
<thead>
<tr>
<th>Variables</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
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<tbody>
<tr>
<td>1. Sat. with contractor</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>2. Sat. with staff service</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Sat. with self-performance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Sat. with function</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Sat. with purchase</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Sat. with ranks</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Overall sat.</td>
<td>.49**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Word-of-mouth</td>
<td>.48**</td>
<td>.54**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Willingness to return</td>
<td>.19</td>
<td>.44**</td>
<td>.54**</td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>6.78</td>
<td>6.47</td>
<td>1.67</td>
<td>1.85</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>1.92</td>
<td>2.05</td>
<td>.47</td>
<td>.36</td>
</tr>
</tbody>
</table>

Note: *p < .05, **p < .01. N=92

Table 2. Correlation Coefficients of the Visitor Model

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Sat. with organizers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Sat. with self-performance</td>
<td>.31**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Sat. with exhibitors</td>
<td>.27**</td>
<td>.71**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Overall sat.</td>
<td>.34**</td>
<td>.89**</td>
<td>.78**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Word-of-mouth</td>
<td>.15**</td>
<td>.60**</td>
<td>.53**</td>
<td>.71**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Willingness to return</td>
<td>.18**</td>
<td>.49**</td>
<td>.44**</td>
<td>.59**</td>
<td>.70**</td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>8.50</td>
<td>6.37</td>
<td>6.43</td>
<td>6.37</td>
<td>1.79</td>
<td>1.88</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>1.69</td>
<td>2.08</td>
<td>2.02</td>
<td>2.27</td>
<td>.41</td>
<td>.32</td>
</tr>
</tbody>
</table>

Note: *p < .05, **p < .01. N=514.
Figure 4. SEM Results on the Exhibitor Model

Contractor → Organizer (.57)
Staff → Organizer (1.00)
Objectives → Self-performance (1.00)
Function → Visitors (.91)
Purchase → Visitors (.92)
Rank → Visitors (.89)
Organizer → Overall Satisfaction (.23)
Self-performance → Overall Satisfaction (.66)
Visitors → Overall Satisfaction (.15)
Overall Satisfaction → Positive Behavioral Intention (.66)
Positive Behavioral Intention → WOM (.81)

Note: All paths significant at the p < .05 level.
The visitor model also exhibited a good fit with CFI, TLI, and RMSEA falling within the accepted cut-off values \( \chi^2 (6, \ N = 514) = 21.14, \ p = .00, \ CFI = .99, \ TLI = .98, \ RMSEA = .07 \). The significant \( p \) value was due to the large sample size (Bentler & Bonett, 1980). The variances of the satisfaction and positive behavioral intention constructs explained by exogenous variables (squared multiple correlation) ranged from .06 to .68. The standardized path coefficients are highlighted in Figure 5.

Figure 5. SEM Results on the Visitor Model

Note: All paths significant at the \( p < .05 \) level.

The standardized path coefficients associated with the eight hypotheses are shown in Table 3. All structural path estimates were significant. The signs of structural paths were consistent with the hypothesized relationships among the latent constructs.
In both the exhibitor and visitor models, satisfaction with self-performance was the dominant indicator of overall satisfaction. The standardized path coefficient from self-performance to overall satisfaction was .66 in the exhibitor model and .68 in the visitor model. It is important to note that the paths from satisfaction with the other two stakeholders to overall satisfaction were also significant. The standardized path coefficient from satisfaction with organizers to overall satisfaction in the exhibitor model was .23, while the same path was .06 in the visitor model. The interaction between exhibitors and visitors was quite consistent across the two models. For exhibitors, the standardized path coefficient from their satisfaction with visitors to overall satisfaction was .15, which is smaller than but close to the standardized path coefficient in the visitor model (.28).

For the exhibitor model, the squared multiple correlation value for overall satisfaction is .76, which indicates that over three quarters of the variance of overall satisfaction could be explained by exhibitors’ satisfaction with the three components of the VEO framework. Also, 43% of the variance of positive behavioral intention could be explained by the exogenous variables in the model, which is higher than the percentage of variance explained in previous studies on this subject (e.g., Kang & Schrier, 2011).

The visitor model showed even better predictive power. Eighty-four percent of the variance of overall satisfaction could be explained by visitors’ satisfaction with the three components of the VEO framework. Sixty-one percent of the variance of positive behavioral intention could be explained by the exogenous variables in the model, which is much higher than the percentage of variance explained in previous studies (e.g., Kim, Lee, & Love, 2009; Tanford et al., 2012; Zhang et al., 2010).
Table 3. Hypotheses Testing

<table>
<thead>
<tr>
<th>Paths</th>
<th>Standardized coefficients</th>
<th>Standard error</th>
<th>Critical ratio</th>
<th>Hypothesis testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exhibitor model</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H1a. Sat.(^1) with visitors ➔ Overall sat.</td>
<td>.15</td>
<td>.07</td>
<td>2.33*</td>
<td>Supported</td>
</tr>
<tr>
<td>H1b. Sat. with self-perf ➔ Overall sat.</td>
<td>.66</td>
<td>.06</td>
<td>10.39**</td>
<td>Supported</td>
</tr>
<tr>
<td>H1c. Sat. with organizers ➔ Overall sat.</td>
<td>.23</td>
<td>.11</td>
<td>3.44**</td>
<td>Supported</td>
</tr>
<tr>
<td>H3. Overall sat. ➔ Positive behavioral intention</td>
<td>.66</td>
<td>.02</td>
<td>6.05**</td>
<td>Supported</td>
</tr>
<tr>
<td>Visitor model</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H2a. Sat. with self-perf ➔ Overall sat.</td>
<td>.68</td>
<td>.03</td>
<td>26.66**</td>
<td>Supported</td>
</tr>
<tr>
<td>H2b. Sat. with exhibitors ➔ Overall sat.</td>
<td>.28</td>
<td>.03</td>
<td>11.04**</td>
<td>Supported</td>
</tr>
<tr>
<td>H2c. Sat. with organizers ➔ Overall sat.</td>
<td>.06</td>
<td>.03</td>
<td>3.05*</td>
<td>Supported</td>
</tr>
<tr>
<td>H4. Overall sat. ➔ Positive behavioral intention</td>
<td>.78</td>
<td>.01</td>
<td>22.77**</td>
<td>Supported</td>
</tr>
</tbody>
</table>

\(^1\)Sat. = Satisfaction  
*Note: *\(p<.01; **p<.001.  

Conclusions and Discussion

Using Structural Equation Modeling, this study found that the VEO conceptual framework works well in a trade show context and explains a good portion of variance in visitors’ and exhibitors’ overall satisfaction and positive behavioral intention. These results indicate that the three key stakeholders must be accounted for when evaluating trade show performance. All three dimensions (i.e., satisfaction with self-performance, and the other two stakeholders) contributed to overall satisfaction and positive behavioral intention, and need to be accounted for. If researchers only focus on one or two dimensions, as has been done previously, a great deal of explanatory power is lost,
the results are less meaningful, and the recommendations for improving exhibitors’ and visitors’ trade show experience are less comprehensive.

Satisfaction with self-performance turned out to be the strongest predictor of overall satisfaction in both the exhibitor and visitor models, which confirmed the importance of self-performance discussed by Hansen (1999) and Li (2007). However, it is important to note that satisfaction with the other two groups was also essential to overall satisfaction. In the exhibitor model, satisfaction with organizers and satisfaction with visitors both contributed significantly to overall satisfaction, indicating that lots of information would have been lost if the focus was only on exhibitors (Jin et al., 2012). The same argument applies to the visitor survey. Visitors’ satisfaction with exhibitors and organizers both contributed significantly to visitors’ overall satisfaction. Positive behavioral intention was also better explained when all three stakeholders were taken into consideration.

Overall, the results indicate that trade show exhibitors’ and visitors’ overall satisfaction depends on not only their self-performance, but also their perceptions of other key stakeholders (Jin et al., 2012). Self-performance is the most important predictor of visitors’ and exhibitors’ overall satisfaction and positive behavioral intention. In addition, understanding the interdependent relationships between stakeholders may help trade show organizers provide more services desired by visitors and exhibitors. For example, the interaction quality between visitors and exhibitors is essential for the success of a trade show (Jin & Weber, 2013). Organizers need to ask their customers what kind of interaction they are looking for and, based on the feedback, provide a platform that facilitates the interaction and promotes the quality and quantity of the interaction. In the meantime, organizers should not overlook the importance of
service quality. Trade shows are not only about number of transactions or times of media exposure, organizers’ service quality is a significant determinant of customers’ overall satisfaction. Organizers should treat their trade show as a service and make sure their customers are well taken care of.

Organizers need to understand exhibitors’ and visitors’ motivations and provide assistance accordingly. For example, to better satisfy exhibitors trade show organizers should 1) provide more services desired by exhibitors (e.g., assistance in marketing, presentations, and booth design, results of visitor satisfaction survey); 2) enhance the quality of the services desired by exhibitors; 3) better inform visitors of the spectrum of exhibits; and 4) identify and attract more visitors of high quality with high decision-making and buying authority (Bello, 1992). To enhance visitors’ satisfaction level and positive behavioral intention trade show organizers should: 1) strive to better understand, and in turn help exhibitors better understand, the objectives of trade show visitors (Kozak & Kayar, 2009); 2) provide a convincing spectrum of exhibits; and 3) provide better visitor services.

Trade show organizers could also use the VEO framework to design their post-show evaluation questionnaire. Based on the specific attributes of the trade show, organizers could develop specific items under each of the three dimensions (i.e., satisfaction with visitors, self-performance, and organizers) for the exhibitor survey and different items for each of the three dimensions (i.e., satisfaction with self-performance, exhibitors, and organizers) for the visitor survey. Rather than just asking about overall satisfaction, the results of a comprehensive post-show evaluation could help organizers identify the major problems with their trade show and allocate their limited resources to address the
problems. Overall, trade show organizers need to not only provide excellent service to exhibitors and visitors, but also cater to the specific needs of their customers and create a good platform for exhibitors and visitors to interact.

**Limitations and Future Research**

While the results of this study challenge researchers and practitioners interested in the trade show industry to think about the outcomes associated with the relationships that exist between key stakeholders, further research is required. First, to measure satisfaction with each of the three dimensions of the VEO framework, two or three items for the exhibitor model and a single item for the visitor model were used. In order to further establish the reliability and validity of the VEO framework and produce more applicable managerial implications, multiple items need to be developed to represent each satisfaction dimension. For example, rather than asking visitors’ about their general perception of the organizer’s performance, researchers should question visitors about the specific services provided by the organizer such as accommodations, onsite services, and networking opportunities. Scale development procedures should follow to examine the composite reliability, content validity, convergent validity, discriminant validity, and predictive validity (Churchill, 1979; DeVellis, 2012; and Fornell & Larcker, 1981), in order to fully establish the reliability and validity of the VEO framework and lay the groundwork for future studies on key stakeholders.

Second, the samples used in this study were self-selected rather than probability samples. The voluntary respondents are active exhibitors or visitors, and their opinions
may differ from attendees who did not respond to the on-line survey. A probability sample should be used in the future in order to extrapolate the results to all trade show participants.

Third, the survey used in this study was conducted online; an approach that continues to be controversial. Internet users tend to be younger and more highly educated than the general U.S. population (Purcell, Rainie, Mitchell, Rosenstiel, & Olmstead, 2010). Visitors and exhibitors at SEMICON 2009 were people in the semiconductor industry who are familiar with technology and the Internet, and most likely are highly educated. Thus, the use of an on-line survey in this study context may not have been an issue. Further, web-based surveys are thought to provide high-quality samples for populations who are likely to frequent the Internet (University of Texas, Austin, 2010). So, again, using an online method of data collection in this study may have only slightly affected the representativeness of respondents.

Fourth, this study focused on one particular trade show in one industry. Caution should be taken when applying the results and conclusions to other trade shows. As a pilot study proposing the VEO framework, an objective of this study was to lay the groundwork with this new perspective. Future studies should apply the framework at trade shows in other industries and geographic locations to examine the influence of industry and culture on the performance of the VEO framework.

Despite the limitations, this study has revealed and validated the VEO conceptual framework, providing researchers and practitioners with new insight to the relationships that exist between the three key stakeholders and the outcomes of those relationships that may have important impacts on the success of the trade show industry.
References


Contemporary Hospitality Management, 23(7), 1000-1018.


education and networking, on conference evaluation through its competing models and moderating effect. *Journal of Convention & Event Tourism, 10*(4), 256-275.


Chapter 3

Chapter 3 was written as an independent manuscript for submission to the peer-reviewed *International Journal of Hospitality Management*. It was formatted per the specifications of the journal. Chapter 2 demonstrated that all three dimensions (i.e., satisfaction with self-performance and satisfaction with the other two stakeholders) contributed significantly to exhibitors’ and visitors’ overall satisfaction. Focusing on exhibitors only, Chapter 3 intends to develop an instrument with good reliability and validity to comprehensively measure exhibitors’ satisfaction.

A measurement scale accounting for the significant roles of three key stakeholders (i.e., trade show visitors, exhibitors, and organizers) in a trade show context was constructed and validated through a pilot test, scale purification and validation. The final instrument consisted of 46-items representing 3 dimensions and 12 sub-dimensions of exhibitors’ satisfaction. Reliability, unidimensionality, content validity, construct validity, discriminant validity, and predictive validity of the scale were tested and established using 594 responses from 3 trade shows in China. The resulting instrument was found to be superior to existing instruments in that it comprehensively measures exhibitors’ performance at a trade show and explains a large portion of exhibitors’ overall satisfaction.
Chapter 3 Developing a Trade Show Exhibitor’s Satisfaction

Measurement Scale

INTRODUCTION

Researchers have conducted extensive studies with trade show exhibitors to identify the key determinants of their satisfaction (Jung, 2005; Lee & Back, 2009). Results have been used to help exhibitors better manage their trade show participation (Dekimpe, François, Gopalakrishna, Lilien, & van den Bulte, 1997) and trade show organizers provide better service to exhibitors (Jin & Weber, 2013). However, these results have been derived from observational outcome indicators (e.g., actual sales at the show, number of leads) that have not been clearly defined or shown to be reliable and valid (Gopalakrishna & Lilien, 1995; Kerin & Cron, 1987). These outcome indicators also have been found to be weakly related to exhibitor’s overall satisfaction and positive behavioral intention (Hansen, 2004; Jin, Weber, & Bauer, 2012). As a result, the trade show performance literature lacks a comprehensive conceptual framework for the determinants of exhibitor’s satisfaction, as well as scales with adequate evidence of reliability and validity (Hansen, 2004).

An additional limitation of previous trade show studies is that most have focused on exhibitors only, failing to acknowledge the roles of the other two key stakeholders—trade show organizers and visitors (e.g., Berne & García-Uceda, 2008; Bruhn & Hadwich, 2005; Jin & Weber, 2013; Reinhold, Reinhold, & Schmitz, 2010). Exceptions include studies by Herbig, O’Hara, and Palumbo (1997), Munuera and Ruiz (1999), and
Jin et al. (2012). These authors accounted for the relationships between two groups of stakeholders and their impacts on trade show performance. However, there have been no studies on the intricate relationships between all three key stakeholders in the trade show industry.

Stakeholder theory, which was introduced by Freeman in 1984, recognizes that successful performance of a business is dependent, in part, on the external environment, which is made up of key stakeholders. In a trade show setting the key stakeholders or “actors” are visitors, exhibitors, and organizers. Face-to-face contact is a key feature of a trade show that distinguishes it from other types of business to business (B2B) marketing and is one of its most valuable features (Godar & O’Connor, 2001). Through face-to-face interactions, exhibitors and visitors share their common interests, discuss industry trends, build relationships in a cost-effective way, and adopt specific roles throughout the purchasing process, should it occur (Kang & Schrier, 2011; Rosson & Seringhaus, 1995). Face to face interactions also involve organizers whose customers are visitors and exhibitors (Jin et al., 2012; Jung, 2005). Thus, the eventual success of a trade show depends largely on its ability to meet the objectives of all three key stakeholders (Gopalakrishna, Roster, & Sridhar, 2010).

The trade show literature lacks a comprehensive conceptual framework, valid and reliable scales, and an understanding of the interactions between the three key stakeholders, making research on key determinants of satisfaction for exhibitors difficult. Thus, the specific objectives of this study are to: 1) construct a measurement scale on trade show exhibitor’s satisfaction that accounts for all three key stakeholders in the trade show industry and 2) empirically examine the scale’s reliability and validity. It is
expected that trade show organizers will be able to use the proposed measurement scale in their post-show evaluation to identify what has the most influence on exhibitor’s overall satisfaction and positive behavioral intention.

Following is a review of the literature that informed this study; results related to the development, purification, and validation of a measurement scale on trade show exhibitor’s satisfaction; and a discussion of the results that will lay the groundwork for a new trade show performance evaluation framework that can be used in future trade show research.

**LITERATURE REVIEW**

**Satisfaction in Trade Shows**

Most studies on satisfaction in the trade show context have focused on overall satisfaction (Lee & Back, 2009; Lee & Beeler, 2009; Oh, 1999). Overall satisfaction is conceptualized as “an overall evaluation based on the total purchase and consumption experience with a good or service over time” (Anderson, Fornell, & Lehmann, 1994, p. 54). The major problem with using overall satisfaction is that it does not address the specific dimensions of satisfaction and, as such, corresponding managerial implications are limited. For example, an exhibitor’s overall satisfaction with a trade show might be 1 out of 5, 5 being extremely satisfied. Without knowing the satisfaction levels associated with each specific dimensions of the trade show, organizers would have no idea how to fix the problem or improve their service quality.
The main benefit organizations receive from satisfying customers is generally higher profitability (Kang & Schrier, 2011). Results of previous studies have indicated that satisfied customers show positive behavioral intentions, such as having a greater intention to return (Bowen & Chen, 2001; Jung, 2005; Servert, Wang, Chen, & Breiter, 2007) and a higher likelihood to share positive comments about their experience (Zhang, Qu, & Ma, 2010). Because trade show participation is a major cost for exhibitors, being satisfied with a trade show could lower their uncertainty, increase intention to return, and minimize their constraints to future participation. This contention lacks empirical evidence, particularly with respect to trade show participation behavior and overall satisfaction levels (Pearlman & Mollere, 2009).

Previous literature on visitor and exhibitor overall satisfaction with trade shows has focused on one or two stakeholders and ignored the intricate interactions between all three stakeholders (i.e., visitors, exhibitors, organizers). For example, most studies on exhibitors’ satisfaction and positive behavioral intentions have focused on exhibitors’ self-performance and/or the interactions between exhibitors and visitors (Jin et al., 2012). Few have included the role of key stakeholders such as organizers or visitors who may shape exhibitors’ satisfaction and positive behavioral intention.

**Stakeholder Theory and Key Stakeholders in Trade Shows**

Freeman (1984), in his work entitled *Strategic Management: A Stakeholder Approach*, defined how stakeholders with similar interests form a group and recognized it is important for businesses to account for their relationship with the external
environment. He also argued that a company can not be self-sufficient because it is dependent on the external environment, which is made up of key stakeholders.

One central tenet of stakeholder theory is that successful strategies need to correspond to the integration of all stakeholder interests rather than the maximization of one group’s position to the detriment of others (Freeman & McVea, 2001). According to Mainardes, Alves, and Raposo (2011), the goal of stakeholder theory is to help organizations realize, analyze, and examine the characteristics of individuals or groups influencing or being influenced by organizational behavior. These individuals or groups are referred to as stakeholders and they have clear expectations of their relational experience with the organization, evaluate the results obtained, and act in accordance with the results of the evaluation (Polonsky, 1996). Thus, the performance of one stakeholder is not only dependent on but also impacts the performance of other key stakeholders.

In the trade show context there are three stakeholders: visitors, exhibitors, and organizers (Jin et al., 2012). Trade shows no longer function solely as a venue in which sales are made; instead, they have become a platform for information exchange and networking (Rosson & Seringhaus, 1995; Stoeck & Schaudy, 2005). The evolving function of trade shows has an important impact on trade show operation and behaviors as well as the relationships between visitors, exhibitors, and organizers (Jin et al., 2012).

A potentially viable research paradigm for studying the relationships between visitors, exhibitors, and organizers is the "network research approach" (Axelsson & Easton, 1992; Ford, 1990). Rather than focusing solely on dyadic buyer-seller relationships, the network research approach recognizes that buyer-seller relationships are
only one part of the web of relationships. It extends the analysis beyond the buyer-seller dyad and explores the triad of relationships between visitors, exhibitors, and organizers, representing an important step in better understanding the way that trade shows work, and the factors contributing to the success of each stakeholder (Rosson & Seringhaus, 1995).

Understanding the three key stakeholders is important because a common objective of trade show organizers is maximization of the number of exhibitors and visitors. Jung (2005) found that visitors at trade shows were most concerned with the number of participating exhibitors, quality of products or services exhibited, and events organized at the trade show, all of which demonstrated strong interactions with exhibitors and organizers. Lee, Yeung, and Dewald (2010) found that trade show visitors are more motivated than public show visitors and expect more from the organizers and exhibitors. Similarly, exhibitors regard trade show participation as a major business investment and expect positive results from visitors and organizers (Hansen, 2004). Thus, the successes of visitors, exhibitors, and organizers are tied together. It is difficult to imagine that organizers would consider a trade show a success without considering both exhibitors’ and visitors’ assessment of their own performance. Thus, there needs to be a conceptual framework that accounts for the triad of relationships between visitors, exhibitors, and organizers.

This study intends to construct and validate a Visitor-Exhibitor-Organizer (VEO) conceptual framework that emphasizes the relationships between these three stakeholders when conducting trade show performance evaluation from the trade show organizer’s perspective (Figure 1). The arrows connecting visitors, exhibitors, and organizers indicate that there are interactions taking place between all three stakeholders in a trade show
context and that their behaviors and perceptions influence each other. For example, an exhibitor’s perception of trade show organizers and visitors, along with his/her perception of self-performance, will determine his/her overall perception of a trade show experience. The same approach could be applied to visitors as well. However, this study focuses on the exhibitor’s satisfaction only. Thus, three dimensions of exhibitor’s satisfaction (i.e., satisfaction with self-performance, visitors, and organizers) will be elaborated on in the following section.

Figure 1. Proposed VEO Framework
Three Dimensions of Exhibitor’s Satisfaction

Exhibitor’s Self-Performance

Exhibitors’ self-performance corresponds to their perception of their own performance at a trade show, which is the most common indicator of exhibitors’ trade show performance and is usually measured against pre-set objectives (Hansen, 2004). Companies participate in trade shows with the expectation of benefits (Sashi & Perretty, 1992), which may include sales, qualified leads, networking, reputation-building and so on. Sales are often considered the ultimate objective of an exhibitor at a trade show and were the primary focus of research on trade shows in the 1990s (Dekimpe et al., 1997).

Gopalakrishna and Lilien (1995) analyzed industrial trade show performance using a three-stage model reflecting the multi-activity nature of exhibiting. The three stages were attraction, contact, and conversion efficiency. The results showed that performance was enhanced by different factors for each of the stages and company-controlled activities in trade shows are crucial to exhibitors’ overall performance. Dekimpe et al. (1997) extended Gopalakrishna and Lilien’s work (1995) by using an attraction effectiveness index, which was computed as the number of attendees from the target audience who visited the booth to talk or obtain literature, divided by the size of the target audience. The key determinants of performance were found to be pre-show promotion spending, size of booth, number of personnel per square foot, and use of vertical trade shows. However, these authors’ performance measures do not present a practical way of measuring trade show performance for exhibitors because the data
required for the measures are not easily available without a sophisticated system for collecting data on visitors’ interests and intentions (Hansen, 2004).

Researchers have recently argued that compared to selling activities, qualified leads and customer relationships are more important during the trade show and could be converted into sales through follow-up activities (Seringhaus & Rosson, 2004). Hansen (1999), who conducted one of the most well-organized and comprehensive studies on exhibitors’ self-performance, argued that trade show performance has traditionally been evaluated using outcome-based measures, and the behavior-based measures are ignored. Hansen set up a preliminary trade show performance construct, which included one outcome-based dimension (sales-related activities) and four behavior-based dimensions (information-gathering activities, image-building activities, motivation activities, and relationship-building activities). These five dimensions are the essence of exhibitor’s performance and it is believed that high values associated with these dimensions lead to a satisfactory overall experience.

The Exhibitor-Visitor Link

Exhibitors (i.e., sellers) and visitors (i.e., buyers) use trade shows to develop new business relationships and work on existing business relationships (Blythe, 2002). Visitors also attend trade shows to reduce their social and technological distance from exhibitors (Ford, 1980). Direct contact between seller and buyer is one of the key features that distinguish trade shows from advertising and promotion. Furthermore, trade shows differ from sales calls because the contact is initiated by the buyer rather than the seller (Munuera & Ruiz, 1999).
Early research on the exhibitor-visitor link focused primarily on selling activities (Bello, 1992; Cavanaugh, 1976; Gopalakrishna & Lilien, 1995; Williams, Gopalakrishna, & Cox, 1993). Tanner and Chonko (1995) found that the primary goal of exhibitors was to get sales. Bello and Lohtia (1993) found that the visitor’s job ranking positively related to the final purchase decision making while firm size negatively related to purchase decision. Recent studies (Seringhaus & Rosson, 2004) found that getting sales was no longer the primary goal of exhibitors and visitors.

Godar and O’Connor (2001) found that visitors attend trade shows for reasons (e.g., reinforce contact and support industry) weakly related or unrelated to purchase intentions. Borghini, Golfetto, and Rinallo (2006) documented the increased importance of information search among trade show visitors and argued that it poses challenges to the way exhibitors traditionally manage their trade show participations or measure returns on trade show investments. Their finding also led to the conclusion that exhibitors need to take good care of potential buyers but also need to dedicate sufficient attention to visitors who are not interested in an immediate purchase. Furthermore, Bello (1992) pointed out that the characteristics of visitors influence the type of information exchange taking place at a trade show. Bello found that visitors holding higher ranking positions are more likely to engage in purchase decision-making and obtaining transaction information, while visitors in lower ranking positions are more likely to obtain technical information. Thus, visitors’ job level and job function play an important part in exhibitors’ success at trade shows.
The Exhibitor-Organizer Link

At industrial trade shows exhibitors are more valuable than visitors because organizers collect most of their revenue from exhibitors. Hence, it is in the organizers’ best interest to cater to the needs of and deliver satisfactory services to exhibitors. The conceptualization of trade shows as services is manifest for all key stakeholders of trade shows (Gottlieb, Brown, & Drennan, 2011). Previous research has demonstrated that trade show visitors (Konopacki, 1996; Munuera & Ruiz, 1999), exhibitors (O’Hara & Herbig, 1993), and organizers (Munuera & Ruiz, 1999) identify trade shows as having a substantial service component. Thus, the link between exhibitors and organizers corresponds to exhibitors’ perception of service quality delivered by organizers.

Adopting Brady and Cronin’s (2001) multi-level model of service quality, Gottlieb et al. (2011) established a model to examine trade show visitors’ perceptions of trade show effectiveness. The model proposes that interaction quality, environment quality, and outcome quality are factors that influence perceptions of service quality and suggests that trade show effectiveness mediates the effect of perceived service quality on perceptions of overall service outcomes. The same approach could also apply to exhibitors’ perception of service quality delivered by organizers. Jin et al. (2012) investigated the relationship quality between exhibitors and organizers in view of its potential to significantly affect the success of a particular trade show. The results indicated that relationship quality between exhibitors and organizers is critical for the successful and sustainable development of trade shows.

Based on the literature reviewed so far, it is clear that visitors, exhibitors, and organizers are the three key stakeholders of trade shows and their interactions with and
perceptions of each other must be accounted for when studying exhibitor’s satisfaction. Thus, this study intends to construct and validate a measurement scale that accounts for the significant roles of all three key stakeholders in a trade show context, based on the VEO conceptual framework on exhibitor’s satisfaction (Figure 2).

![VEO Framework on Exhibitor’ Satisfaction](image)

**SCALE DEVELOPMENT**

**Item Generation and Content Validity**

Three dimensions of exhibitor’s satisfaction were combined to create an overall satisfaction scale. To validate the three dimensions, exhibitors were asked to indicate their overall satisfaction with the trade show using a 7-point Likert scale ranging from
“extremely unsatisfied” (1) to "extremely satisfied” (7). A description of each dimension follows.

*Exhibitor’s satisfaction with self-performance*

Hansen’s (1999) five-dimension conceptual framework was used to enable exhibitors to document their self-performance. Hansen’s framework includes one outcome-based dimension (sales-related activities) and four behavior-based dimensions (information-gathering activities, image-building activities, motivation activities, and relationship-building activities), which were considered the essence of exhibitors’ performance. This five-dimension framework emphasizes non-sales activities and was utilized in one of the most well-organized and comprehensive studies on exhibitors’ self-performance (Seringhaus & Rosson, 2004). Exhibitors were asked to rate their level of satisfaction with each statement using a 7-point, 18-item scale (1= extremely poor, 7= extremely excellent).

*Exhibitor’s satisfaction with organizers*

Based on their own qualitative research and Rust and Oliver’s (1994) three-component service quality model, Brady and Cronin (2001) found that service quality is a third-order construct that consists of three primary dimensions: interaction quality, environment quality, and outcome quality. Each of the primary dimensions has three sub-dimensions. Interaction quality contains attitude, behavior, and expertise; environment quality contains ambient conditions, design, and social factors; and outcome quality contains waiting time, tangibles, and valence. Brady and Cronin’s measure has been used in the trade show context and has exhibited excellent reliability and validity (see Gottlieb et al., 2011). For this study, the sub-dimension waiting time was dropped because it does
not apply to the trade show industry. As a result, a 21 item measure based on Brady and Cronin’s (2001) multi-level model on service quality was used to document exhibitors’ level of satisfaction with organizers (Appendix). Exhibitors were asked to rate their level of agreement using a 7-point scale (1= strongly disagree, 7=strongly agree).

Exhibitor’s satisfaction with visitors

A 7-point, 12-item performance scale (1= extremely poor, 7= extremely excellent) drawn from a study I conducted (Lin, 2011) was used to enable exhibitors to indicate their level of satisfaction with visitors. Four sub-dimensions captured exhibitors’ satisfaction with visitors: visitors’ job level, job function, purchasing authority, and interaction. All four sub-dimensions have been found to influence exhibitors’ satisfaction with visitors (Bello, 1992; Bello & Lohtia, 1993; Rosson & Seringhaus, 1995).

Content Validity

Four experts (three from the industry and one from academia) reviewed the three dimensions of the satisfaction scale to ensure content validity (Devellis 2003). The experts suggested eliminating one item (i.e., “motivate customers”) and editing three items (i.e., AC1, AC2, and AC3 in the Ambient Conditions dimension, see Table 1). A total of 50 items were retained to measure the three dimensions of trade show exhibitor’s satisfaction.
**Purification of the Measurement Scale**

A pilot test of the 50-item satisfaction scale was undertaken using data collected from the 10th China Household Electrical Appliances Trade Fair, which was held from August 22 - 24, 2013 in Zhongshan, China. The Fair hosted 800 exhibitors and over 60,000 visitors (i.e., professional buyers). A total of 400 exhibitors were approached during the last day of the trade show and asked to participate in a survey. For every exhibiting company approached, the on-site personnel with the highest ranking were asked to fill out the questionnaire until the target number (n=400) was reached. Multiple trade show staff were involved with the data collection process. They were provided instructions regarding face-to-face interviewing before the Fair and were given a script and told to strictly follow it when surveying exhibitors. Trade show staff were also asked to keep their opinions to a minimum. The survey instrument included the three-dimension satisfaction scale. Exhibitors were asked to use a 7-point Likert scale to indicate their level of agreement with each of the 50 statements (Table 1).
<table>
<thead>
<tr>
<th>Dimension</th>
<th>Sub-dimension</th>
<th>Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-performance</td>
<td>Sales</td>
<td>S1. Test new product concepts.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>S2. Develop new product/market segments.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>S3. Introduce and evaluate reactions to new products.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>S4. Actual sales at the trade show to customers.</td>
</tr>
<tr>
<td></td>
<td>Information</td>
<td>IG1. Collect information about competitors’ prices, products, and strategies.</td>
</tr>
<tr>
<td></td>
<td>Gathering</td>
<td>IG2: Collect information in general.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IG3: Search for information about visitors.</td>
</tr>
<tr>
<td></td>
<td>Relationship</td>
<td>RB1. Strengthen relationships with existing customers.</td>
</tr>
<tr>
<td></td>
<td>Building</td>
<td>RB2: Build relationships with new customers.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>RB3. Maintain contact with existing customers.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>RB4. Develop contact with new customers.</td>
</tr>
<tr>
<td></td>
<td>Image Building</td>
<td>IB1. Demonstrate to customers that we are just as good as our competitors.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IB2. Enhance customers’ image of our company.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IB3. Convince customers that we are a strong and solid company.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IB4. Gain advantage over competitors who are not exhibiting.</td>
</tr>
<tr>
<td></td>
<td>Motivation</td>
<td>M1. Train and develop our sales team.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M2. Strengthen our sales people’s motivation (e.g., traveling abroad, break in daily routines, meeting customers at the show and outside the show area).</td>
</tr>
<tr>
<td></td>
<td>Organizers</td>
<td>A1. You can count on the trade show organizers being friendly.</td>
</tr>
<tr>
<td></td>
<td>Interaction</td>
<td>A2. The attitude of the trade show organizers demonstrates their willingness to help me.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A3. The attitude of the trade show organizers shows me that they understand my needs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B1. I can count on the trade show organizers to address my needs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B2. The trade show organizers respond quickly to my needs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B3. The trade show organizers understand my needs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>E1. The trade show organizers know their jobs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>E2. The trade show organizers are able to answer my questions quickly.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>E3. The organizers understand that I rely on their knowledge to meet my needs.</td>
</tr>
</tbody>
</table>
A total of 336 exhibitors provided valid feedback, yielding a response rate of 84.0%. In order to examine response bias, a comparison was conducted between early responders (i.e., first 168 respondents) and late responders (i.e., last 168 respondents).
There were no significant differences between the two groups in terms of the mean scores on each of the three dimensions.

Analyses of the items comprising the sub-dimensions of the satisfaction scale were conducted to examine their consistency (Churchill, 1979). A corrected item-total correlation (CITC) of .30 was used to decide whether or not to delete an item from a sub-dimension (DeVellis, 2012). Cronbach’s alpha was used to ensure the reliability of each sub-dimension.

An iterative sequence of calculating CITC and Cronbach’s alpha was repeated multiple times. Four items from the Organizers dimension had a CITC lower than the .30 cutoff value: D2—“The trade show’s layout serves my purposes,” SF2—“The trade shows’ visitors consistently leave me with a good impression,” T1—“I am pleased with the quality of our booth,” and T2—“I am pleased with the food provided by the organizers.” JL1—“Overall job level of customers,” an item in the Visitor dimension, was also removed. After sharing these findings with trade show experts, they indicated that: 1) visitors’ job level is an important factor in determining exhibitors’ satisfaction; 2) exhibitors generally do not associate layout or booth quality with their trade show experience; 3) there is limited food supply at trade shows in China; and 4) the item SF2 is similar to the items in the Satisfaction with Visitors dimension. Thus, all the items other than JL1—“Overall job level of customers” were removed.

The proposed measurement scale is a third-order construct with three dimensions (i.e., satisfaction with self-performance, satisfaction with organizers, and satisfaction with visitors) and twelve sub-dimensions. Table 2 highlights the descriptive statistics as well as the CITC and alpha coefficients for the 12 sub-dimensions. All but two of the alpha
coefficients were higher than .65. These coefficients are justifiable when there are fewer items in the sub-dimensions (Cortina, 1993). Indices were generated for each of the sub-dimensions.

Table 2. Pilot Study Results with Revised Scale Items

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Sub-dimension</th>
<th>Item</th>
<th>Mean (SD)</th>
<th>CITC</th>
<th>Alpha Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-performance</td>
<td>Sales</td>
<td>S1</td>
<td>3.967 (1.208)</td>
<td>.752</td>
<td>.811</td>
</tr>
<tr>
<td></td>
<td></td>
<td>S2</td>
<td>4.464 (1.010)</td>
<td>.676</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>S3</td>
<td>3.771 (.970)</td>
<td>.664</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>S4</td>
<td>3.893 (.937)</td>
<td>.449</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Information Gathering</td>
<td>IG1</td>
<td>4.015 (.865)</td>
<td>.627</td>
<td>.648</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IG2</td>
<td>4.390 (.877)</td>
<td>.372</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>IG3</td>
<td>3.699 (.915)</td>
<td>.395</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Relationship Building</td>
<td>RB1</td>
<td>4.280 (.891)</td>
<td>.608</td>
<td>.804</td>
</tr>
<tr>
<td></td>
<td></td>
<td>RB2</td>
<td>4.054 (.929)</td>
<td>.575</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>RB3</td>
<td>4.554 (.876)</td>
<td>.516</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>RB4</td>
<td>3.807 (.829)</td>
<td>.793</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Image Building</td>
<td>IB1</td>
<td>4.351 (.947)</td>
<td>.717</td>
<td>.811</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IB2</td>
<td>4.482 (.998)</td>
<td>.695</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>IB3</td>
<td>4.789 (.930)</td>
<td>.636</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>IB4</td>
<td>4.199 (.787)</td>
<td>.418</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Motivation</td>
<td>M1</td>
<td>4.488 (.989)</td>
<td>.513</td>
<td>.657</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M2</td>
<td>4.717 (.725)</td>
<td>.513</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Interaction</td>
<td>A1</td>
<td>4.164 (.864)</td>
<td>.358</td>
<td>.826</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A2</td>
<td>4.074 (.926)</td>
<td>.576</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>A3</td>
<td>4.497 (.757)</td>
<td>.520</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>B1</td>
<td>4.116 (.548)</td>
<td>.549</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>B2</td>
<td>3.881 (.775)</td>
<td>.548</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>B3</td>
<td>4.048 (.816)</td>
<td>.684</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>E1</td>
<td>4.164 (.687)</td>
<td>.339</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>E2</td>
<td>4.247 (.758)</td>
<td>.665</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>E3</td>
<td>4.199 (.728)</td>
<td>.587</td>
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<td>AC2</td>
<td>AC3</td>
<td>AC4</td>
<td>SF1</td>
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<tr>
<td>Environment</td>
<td>4.182 (.807)</td>
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<td>.679</td>
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<td></td>
<td>4.348 (.888)</td>
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<tr>
<td></td>
<td>4.539 (.887)</td>
<td>.467</td>
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<tr>
<td></td>
<td>4.345 (.857)</td>
<td>.518</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>4.491 (.927)</td>
<td>.466</td>
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<table>
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<td>.754</td>
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<tr>
<td></td>
<td>4.166 (.822)</td>
<td>.552</td>
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<tr>
<td></td>
<td>4.149 (.758)</td>
<td>.708</td>
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<table>
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<th>JL3</th>
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</thead>
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<td>Visitors</td>
<td>4.039 (.829)</td>
<td>.296</td>
<td>.503</td>
</tr>
<tr>
<td></td>
<td>4.310 (.817)</td>
<td>.348</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4.262 (.889)</td>
<td>.314</td>
<td></td>
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<table>
<thead>
<tr>
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<th>JF3</th>
<th>JF4</th>
</tr>
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<td>Job Function</td>
<td>4.313 (.665)</td>
<td>.522</td>
<td>.694</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4.214 (.819)</td>
<td>.564</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4.548 (.863)</td>
<td>.408</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4.396 (.898)</td>
<td>.447</td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Variable</th>
<th>PA1</th>
<th>PA2</th>
<th>PA3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchasing Authority</td>
<td>4.086 (.774)</td>
<td>.607</td>
<td>.755</td>
</tr>
<tr>
<td></td>
<td>4.027 (.837)</td>
<td>.692</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4.133 (.770)</td>
<td>.469</td>
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</table>

<table>
<thead>
<tr>
<th>Variable</th>
<th>C1</th>
<th>C2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td>4.348 (.781)</td>
<td>.413</td>
</tr>
<tr>
<td></td>
<td>4.295 (.699)</td>
<td>.413</td>
</tr>
</tbody>
</table>

Following the guidelines proposed by DeVellis (2012), Confirmatory Factor Analysis (CFA) was used to verify the unidimensionality of the three satisfaction dimensions. The Root Mean Square Error of Approximation (RMSEA), the Normed Fit Index (NFI), the Tucker-Lewis Index (TLI), and the item regression coefficients were reviewed (Table 3). A good model fit requires the ratio of Chi Square and degree of freedom to be lower than 5; NFI, TLI, and CFI to be higher than .90; and RMSEA to be lower than .10 (Bentler, 1990; Hu & Bentler, 1998; Steiger, 1990; Tucker & Lewis, 1973). The Organizers dimension had nine distinct sample moments and nine distinct parameters to be estimated, resulting in a saturated model. This model was further
validated through examination of path coefficients and squared multiple correlations. The GOF statistics for the three dimensions were satisfactory and all path coefficients were significant and in the expected direction.

Table 3. Goodness-of-fit Statistics of the Three Models

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2$</th>
<th>$\chi^2$/df</th>
<th>NFI</th>
<th>TLI</th>
<th>CFI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfaction with organizers (saturated)</td>
<td>.000</td>
<td>NA</td>
<td>1.000</td>
<td>NA</td>
<td>1.000</td>
<td>NA</td>
</tr>
<tr>
<td>Satisfaction with visitors</td>
<td>3.262</td>
<td>1.631</td>
<td>.993</td>
<td>.992</td>
<td>.997</td>
<td>.043</td>
</tr>
</tbody>
</table>

**SCALE VALIDATION**

Following the guidelines proposed by DeVellis (2012) and Churchill (1979), convergent validity, discriminant validity, predictive validity and composite reliability were used to examine the measurement scale. The results of the pilot test with exhibitors at the 10th China Household Electrical Appliances Trade Fair led to the deletion of three items, resulting in a modified 46-item (3 dimension) exhibitor’s satisfaction scale. The satisfaction scale was included in an expanded instrument that was used to address the following topics and test the scale’s validity: exhibitor’s overall satisfaction, willingness to return, and word-of-mouth effect. Exhibitor’s overall satisfaction was used to examine convergent and discriminant validity, while willingness to return and word-of-mouth
effect were used to examine predictive validity. To detect subtle differences on exhibitor’s satisfaction, a 10-point Likert scale was used with all questions.

The modified instrument was distributed to a new sample of 750 exhibitors at 3 trade shows (Table 4). The China International Game & Amusement Exhibition, supported by more than 50 international associations, magazines and professional websites from over 20 countries, is one of the leading trade shows in the amusement industry, where manufacturers display their products and visitors buy quality products or look for business partners. The China Household Electrical Appliances Trade Fair is one of the largest trade shows on household appliances in China, with an annual exhibitor attendance of over 1,500 and visitor attendance of over 160,000. Multiple trade show staff were involved with the data collection process and were asked to follow the same protocol used in the pilot study. Overall, 594 valid responses were obtained, yielding a 79.2% response rate.

Nearly two thirds (63.1%) of the respondents had a background in sales and 30.5% had a background in management. Most (84.2%) respondents were department managers or held higher level managerial positions. As for previous trade show experience, 18.5% of the respondents were first-time exhibitors at the trade show where they were interviewed, while 11.7% were first-time exhibitors at trade shows in general. Eight-two percent of the respondents were repeat customers of this particular trade show and forty-nine percent had attended six or more trade shows previously. Table 5 lists the correlation matrix of the variables used in the model. All correlation coefficients were significant and in the expected direction.
Table 4. Demographic Profile of the Trade Shows Assessed in this Study

<table>
<thead>
<tr>
<th></th>
<th>2013 China International Games &amp; Amusement Fair (n=91)</th>
<th>2014 China International Games &amp; Amusement Exhibition (n=109)</th>
<th>2014 China Household Electrical Appliances Trade Fair (n=394)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location</td>
<td>Zhongshan, China</td>
<td>Guangzhou, China</td>
<td>Zhongshan, China</td>
</tr>
<tr>
<td>Frequency</td>
<td>Annually</td>
<td>Annually</td>
<td>Six-monthly</td>
</tr>
<tr>
<td>Edition</td>
<td>6&lt;sup&gt;th&lt;/sup&gt;</td>
<td>9&lt;sup&gt;th&lt;/sup&gt;</td>
<td>11&lt;sup&gt;th&lt;/sup&gt;</td>
</tr>
<tr>
<td>Exhibition Area (m&lt;sup&gt;2&lt;/sup&gt;)</td>
<td>44,000</td>
<td>80,000</td>
<td>45,000</td>
</tr>
<tr>
<td>Number of Exhibitors</td>
<td>260</td>
<td>350</td>
<td>850</td>
</tr>
<tr>
<td>Number of Visitors</td>
<td>20,000</td>
<td>20,000</td>
<td>80,000</td>
</tr>
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</table>

Table 5. Correlation Coefficients

<table>
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<tr>
<th>Variables</th>
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<th>2</th>
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<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Sales</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Information Gathering</td>
<td>.605**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Relationship Building</td>
<td>.742**</td>
<td>.666**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Image Building</td>
<td>.593**</td>
<td>.678**</td>
<td>.634**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Motivation</td>
<td>.396**</td>
<td>.600**</td>
<td>.543**</td>
<td>.816**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Interaction</td>
<td>.660**</td>
<td>.691**</td>
<td>.668**</td>
<td>.723**</td>
<td>.645**</td>
<td></td>
<td></td>
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<td>7. Environment</td>
<td>.710**</td>
<td>.601**</td>
<td>.676**</td>
<td>.597**</td>
<td>.520**</td>
<td>.808**</td>
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<tr>
<td>8. Outcome</td>
<td>.651**</td>
<td>.627**</td>
<td>.665**</td>
<td>.740**</td>
<td>.645**</td>
<td>.864**</td>
<td>.812**</td>
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<tr>
<td>9. Job Level</td>
<td>.810**</td>
<td>.577**</td>
<td>.720**</td>
<td>.584**</td>
<td>.382**</td>
<td>.718**</td>
<td>.783**</td>
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<td>10. Job Function</td>
<td>.788**</td>
<td>.569**</td>
<td>.738**</td>
<td>.597**</td>
<td>.408**</td>
<td>.729**</td>
<td>.754**</td>
</tr>
<tr>
<td>11. Purchase Authority</td>
<td>.743**</td>
<td>.651**</td>
<td>.716**</td>
<td>.660**</td>
<td>.527**</td>
<td>.754**</td>
<td>.775**</td>
</tr>
<tr>
<td>12. Communication</td>
<td>.653**</td>
<td>.664**</td>
<td>.701**</td>
<td>.645**</td>
<td>.564**</td>
<td>.755**</td>
<td>.717**</td>
</tr>
<tr>
<td>13. Overall Satisfaction</td>
<td>.406**</td>
<td>.633**</td>
<td>.441**</td>
<td>.668**</td>
<td>.644**</td>
<td>.655**</td>
<td>.581**</td>
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*Note: *<i>p < .05</i>, **<i>p < .01</i>. N=594
Table 5. Correlation Coefficients (continued)

<table>
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<tr>
<th>Variables</th>
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<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
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</thead>
<tbody>
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<td>1. Sales</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Information Gathering</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Relationship Building</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Image Building</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>5. Motivation</td>
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<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>6. Interaction</td>
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<td></td>
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<td></td>
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</tr>
<tr>
<td>7. Environment</td>
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<td>8. Outcome</td>
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<td>9. Job Level</td>
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<td>.733**</td>
<td>.750**</td>
<td>.804**</td>
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<td>13. Overall Satisfaction</td>
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<td>.464**</td>
<td>.441**</td>
<td>.642**</td>
<td>.581**</td>
<td></td>
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</tbody>
</table>

*Note: *p < .05, **p < .01. N=594

Convergent Validity

Convergent validity was examined by looking at composite reliability, average variance extracted, squared multiple correlation (Fornell & Larcker, 1981), and the significance of item loadings on the hypothesized dimensions (Anderson & Gerbing, 1988). Composite reliability, average variance extracted and squared multiple correlation were used because there were some missing data and modification indices could not be employed.

Since the reliability of each sub-dimension within the three satisfaction dimensions (i.e., satisfaction with self-performance, satisfaction with organizers, and satisfaction with visitors) was established through the pilot study, an index was calculated for the 12 sub-dimensions. Then, a 12-item (i.e., indices for the 12 sub-dimensions),
three-dimensional (i.e., 3 satisfaction dimensions) confirmatory factor model was conducted.

To establish convergent validity, the following conditions must be met: 1) all item loadings need to be statistically significant; 2) composite reliability needs to be higher than .70; 3) average variance extracted needs to be higher than .50; 4) and squared multiple correlation needs to be higher than .50 (Bagozzi & Yi, 1988; Fornell & Larcker, 1981). The results indicated that all item loadings were statistically significant ($p < .001$) and the goodness-of-fit statistics for the model were satisfactory ($\chi^2(58) = 301.589, p = .000, \text{CFI} = .968, \text{TLI} = .950, \text{RMSEA} = .086$). Composite reliabilities for the three dimensions exceeded the cutoff value of .70. Average variance extracted and squared multiple correlation both exceeded the cutoff value of .50. The relevant statistics are presented in Table 6. Overall, the results established the convergent validity of the measurement scale.
Table 6. Confirmatory Factor Analysis Results

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Sub-dimension</th>
<th>Standardized Factor Loading</th>
<th>Composite Reliability</th>
<th>Average Variance Extracted</th>
<th>Squared Multiple Correlation</th>
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</thead>
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<td>Self-Performance</td>
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<td></td>
<td></td>
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<td>.922</td>
<td>.702</td>
<td>.679</td>
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<td>Information Gathering</td>
<td>.828</td>
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<td></td>
<td></td>
<td>.685</td>
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<td>Relationship Building</td>
<td>.884</td>
<td></td>
<td></td>
<td></td>
<td>.782</td>
</tr>
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<td>Image Building</td>
<td>.831</td>
<td></td>
<td>.922</td>
<td>.702</td>
<td>.673</td>
</tr>
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<td>Motivation</td>
<td>.821</td>
<td></td>
<td>.922</td>
<td>.702</td>
<td>.673</td>
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<tr>
<td>Organizer</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interaction</td>
<td>.835</td>
<td></td>
<td>.911</td>
<td>.774</td>
<td>.698</td>
</tr>
<tr>
<td>Environment</td>
<td>.869</td>
<td></td>
<td></td>
<td></td>
<td>.756</td>
</tr>
<tr>
<td>Outcome</td>
<td>.933</td>
<td></td>
<td>.911</td>
<td>.774</td>
<td>.870</td>
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<tr>
<td>Visitor</td>
<td></td>
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</tr>
<tr>
<td>Job Level</td>
<td>.843</td>
<td></td>
<td>.938</td>
<td>.790</td>
<td>.710</td>
</tr>
<tr>
<td>Job Function</td>
<td>.872</td>
<td></td>
<td></td>
<td></td>
<td>.761</td>
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<tr>
<td>Purchase Authority</td>
<td>.939</td>
<td></td>
<td></td>
<td></td>
<td>.881</td>
</tr>
<tr>
<td>Communication</td>
<td>.899</td>
<td></td>
<td>.938</td>
<td>.790</td>
<td>.809</td>
</tr>
</tbody>
</table>

**Discriminant Validity**

To test the discriminant validity of the satisfaction scale, a series of one-factor and two-factor CFA models were conducted and change in chi-square between the one-factor and two-factor measurement models was assessed (Bagozzi, Yi, & Phillips, 1991).

According to Hosany and Gilbert (2010), if the two-factor model is significantly better than the one-factor model, the difference in the chi-square statistic relative to the one-factor model should also be significant. Results indicated that the two-factor model was better \((p < .001)\) than the one-factor model for all pairs of sub-dimensions. For example, combining the Satisfaction with Visitors dimension and the Satisfaction with Organizers...
dimension into a single factor produced a significantly worse fit ($\chi^2 (32) = 441.012, p < .001$, CFI= .914, TLI= .852, RMSEA = .150) than a two-factor model ($\chi^2 (28) = 178.220, p < .001$, CFI= .968, TLI= .938, RMSEA = .097). The chi-square difference test also indicated that the two-factor model was superior to the one-factor model. Thus, these results established the discriminant validity of the measurement scale.

**Predictive Validity**

Predictive validity is defined as the ability of the scale to estimate an outcome variable that is external to the measurement instrument itself (Nunnally & Bernstein, 1994). Researchers have shown that customer satisfaction can lead to positive word-of-mouth (Zhang et al., 2010) and intention to return (Bowen & Chen, 2001; Jung, 2005). Thus, to establish the predictive validity of the scale, the endogenous latent variable—positive behavioral intention—and two observed variables—word-of-mouth and willingness to return—were added to the structural equation model with the three dimensions of exhibitor’s satisfaction and overall satisfaction. For willingness to return, exhibitors were asked whether or not they would return to the same trade show next year. For word-of-mouth effect, exhibitors were asked whether or not they would recommend the trade show to their colleagues and other companies. Both variables were measured using a 10-point Likert scale (1 = least likely; 10 = most likely). A path from overall satisfaction to behavioral intention was drawn to test the predictive power of the proposed model.
Standardized path coefficients and squared multiple correlations were examined to establish the predictive validity of the scale. The goodness-of-fit of the model turned out to be satisfactory ($\chi^2 (83) = 452.126$, $p < .001$, CFI= .960, TLI= .942, RMSEA = .088). All path coefficients were statistically significant ($p < .01$) and the squared multiple correlation for the positive behavioral intention was .741, which means that 74.1% of the variance in positive behavioral intention could be explained by the three satisfaction dimensions. Thus, the predictive validity of the measurement scale was established.

**DISCUSSION AND IMPLICATIONS**

The objectives of this study were to construct a valid and reliable exhibitor satisfaction scale that accounts for the three stakeholders in the trade show industry. Following a review of the literature, a VEO framework was proposed to account for the three key stakeholders in the trade show industry. Based on the VEO framework and the scale development procedure recommended by DeVellis (2012) and Churchill (1979), an exhibitor satisfaction scale was successfully constructed and validated. The final scale consisted of 46-items that represented 12 sub-dimensions and 3 dimensions of satisfaction. Reliability, unidimensionality, content validity, construct validity, discriminant validity, and predictive validity of the scale were tested and established using 594 responses from 3 trade shows in China. The goodness-of-fit indices indicated a satisfactory fit for the proposed scale.

A major contribution of this study is that it introduces a new approach to measuring satisfaction in the trade show industry. Previous measures focused on one
specific stakeholder and ignored the interactions taking place with other stakeholders (Godar & O'Connor, 2001; Jin et al., 2012). This approach was problematic because it failed to capture the significant impacts of all three key stakeholders. No matter how many sales leads exhibitors get during a trade show, if their booths are damaged due to organizers’ negligence, they might not be satisfied with their overall experience and might choose to skip the trade show the next year. Similarly, visitors might enjoy the most meticulous service from the organizer, but if they did not meet enough exhibitors, the whole experience would be considered unsatisfactory, leading to negative word-of-mouth.

The results of this study showed that all three dimensions of exhibitor’s satisfaction (i.e., self, visitor, and organizer) contributed significantly to overall satisfaction. Predictive validity statistics showed that all of the standardized path coefficients from the three dimensions to overall satisfaction were significant and that a sizeable percentage of variance in overall satisfaction (67.6%) and positive behavioral intention (74.1%) was explained by the three-dimension model. These results indicated that overall satisfaction and positive behavioral intention are better explained when all three stakeholders are taken into account.

In line with previous research on trade show service quality (Brady & Cronin, 2001; Gottlieb et al., 2011), three sub-dimensions of satisfaction with organizers (i.e., interaction, environment, and outcome) contributed significantly to overall satisfaction with standardized loadings ranging from .836 to .934. However, it is not sufficient to only look at service quality when evaluating exhibitor’s overall satisfaction. Exhibitor’s satisfaction with self-performance contributed significantly to their overall satisfaction as
The five sub-dimensions of self-performance (i.e., sales, information gathering, image building, relationship building, and motivation) turned out to be quite significant, with standardized loadings ranging from .821 to .884, further validating Hansen’s (2004) five-dimension framework on trade show performance. The four sub-dimensions of satisfaction with visitors also were statistically significant, with standardized loadings ranging from .843 to .940. Consistent with previous research, visitors’ job level, job function, purchase power, and communication all contributed significantly to exhibitor’s overall satisfaction (Bello, 1992; Rosson & Seringhaus, 1995). It turned out that job level was a significant item within exhibitor’s satisfaction with visitors, which was consistent with previous literature (Bello, 1992). Thus, maintaining it in the scale proved to be a good decision.

**MANAGERIAL IMPLICATIONS**

With increased competition trade show organizers will have to differentiate themselves by offering user-oriented services (Berne & García-Uceda, 2008). However, information about what makes an effective trade show and what contributes to visitors and exhibitors satisfaction remains limited (Gottlieb et al., 2011). Few researchers have analyzed trade show evaluation systematically from the organizer’s perspective. With this study, this situation is changing. Trade show organizers can use the exhibitor satisfaction scale constructed and validated in this study to evaluate their trade shows. This is of immense value as a primary objective of trade show organizers is to create effective shows that result in positive outcomes for both exhibitors and visitors.
Trade show organizers can use the measurement scale to detect the relative importance of each dimension, sub-dimension, and items within each sub-dimension. Once the organizers know which items carry the most weight in their particular trade show, they can allocate their limited resources to improve upon or address problems associated with the items. In addition, trade show organizers could customize the measurement scale to fit their particular trade show. Since trade show exhibitors are mostly executives with limited time to spare, organizers could use a scale consisting of the 12 sub-dimensions rather than the full model with 46 items. Analysis of data at different levels would allow the flexibility of general versus detailed evaluation.

LIMITATIONS AND FUTURE RESEARCH

Visitors, exhibitors, and organizers are the three key stakeholders in the trade show industry. However, there are other stakeholders that might influence the satisfaction level of exhibitors and their positive behavioral intention. For example, the host city and members of the local community could impact exhibitor’s trade show participation experience (Oppermann & Chon, 1997). Zhang, Leung, and Qu (2007) pointed out that attractiveness (e.g., friendliness of local people, sightseeing opportunity) and accessibility (e.g., distance of the trip, availability of direct flight) of the convention destination are important in attracting exhibitors. Thus, future studies should integrate other stakeholders into the conceptual framework and develop a modified exhibitor satisfaction scale that accounts for four or more stakeholders in the trade show industry. It would also be interesting to investigate the dynamic impact of stakeholders on one another.
Second, this study only focused on exhibitors’ satisfaction. It is expected that the VEO conceptual framework will be successful with visitors as well. Based on the VEO framework, visitor’s satisfaction consists of three dimensions: visitor’s satisfaction with self-performance, exhibitors, and organizers. To further validate the VEO framework, future studies should focus on visitor’s satisfaction. Based on the results of this study, it is expected that the three dimensions would contribute significantly to visitor’s overall satisfaction and positive behavioral intention.

Third, to further establish the predictive validity of the scale, actual behavior, instead of positive behavioral intention, should be measured. Previous findings have shown that the strength of correlation between positive behavioral intention to actual behavior ranges between .41 and .53 (O’Keefe, 2002). Temporal stability of intention (Ajzen & Fishbein, 1977) and the degree to which the behavior was planned (Sheeran, Orbell, & Trafimow, 1999) are known to influence the conversion rate from intention to behavior. Most trade shows are held annually and these factors could well come into play during that one year gap. Exhibitors could change their minds even if they indicated that they would be coming back next year. Thus, adopting a longitudinal design by collecting data on both positive behavioral intention and actual behavior could strengthen the predictive validity of the measurement scale and provide additional insight into exhibitor’s satisfaction and decision-making.

Fourth, trade show practices tend to vary across different market environments (Dekimpe et al., 1997). In this study data were collected from trade shows for the household electronics industry and the game and amusement equipment industry, all of which were held in China. Future research should cross validate the VEO conceptual
framework and the measurement scale using trade shows from other industries and other geographic locations.

In conclusion, this study contributes to the satisfaction literature by building upon stakeholder theory and introducing a valid and reliable satisfaction measurement scale that is readily available for use in trade show and event settings.
REFERENCES


Chapter 4

Chapter 4 was written as an independent manuscript for submission to the peer-reviewed *Journal of Convention & Event Tourism*. It was formatted per the specifications of the journal. Based on the measurement instrument developed in Chapter 3, this manuscript intends to examine the effects of the three dimensions (i.e., satisfaction with self-performance, satisfaction with organizers, and satisfaction with visitors) on exhibitors’ positive behavioral intention.

Applying stakeholder theory in the trade show industry, this study used a 46-item measurement scale on exhibitors’ satisfaction to predict positive behavioral intention. Three dimensions were proposed to account for three key stakeholders in the trade show industry: visitors, exhibitors, and organizers. Using data from 594 exhibitors at 3 trade shows, it was found that satisfaction with self-performance, satisfaction with organizers, and satisfaction with visitors are significantly and positively related to exhibitors’ positive behavioral intention. Satisfaction with organizers turned out to be the dominant predictor and the three dimensions in combination explained approximately two thirds of the variance in exhibitors’ positive behavioral intention.
Chapter 4 An Exploratory Study on Determinants of
Exhibitors’ Behavioral Intention

Introduction

Companies spend a substantial portion of their marketing budget exhibiting at trade shows. In 2006, trade shows surpassed print as the largest source of Business-to-Business (B2B) media and information industry revenues (American Business Media, 2007). More recently, trade shows were responsible for nearly one-half of B2B media and information industry revenues (American Business Media, 2013). Along with the jump in expenditures, there has been a substantial increase in infrastructure development for and the number of trade shows in the past few decades (Jin & Weber, 2013). In order to compete in this burgeoning market, organizers—the main propeller of the trade show industry—need to identify the key factors that attract new exhibitors as well as the factors that retain existing exhibitors (Lee & Beeler, 2009). Hence, it is crucial for trade show organizers to know about the key dimensions that influence the behavioral intention of their exhibitors (Hutchinson, Wellington, Saad, & Cox, 2011).

The main objective of trade show organizers is to put on an effective trade show that results in positive outcomes for both exhibitors and visitors (Gottlieb, Brown, & Drennan, 2011). However, previous research on what constitutes an effective trade show has been fragmented (Seringhaus & Rosson, 2004) and fails to acknowledge the various stakeholders in the trade show industry (Jin, Weber, & Bauer, 2012). According to stakeholder theory, businesses must account for their relationships with the key
stakeholders in their external environment and examine the characteristics of these stakeholders to improve business performance (Freeman, 1984; Mainardes, Alves, & Raposo, 2011). To study trade shows, researchers must recognize that three primary stakeholders are involved in trade shows: visitors, exhibitors, and organizers (Bruhn & Hadwich, 2005). Organizers establish the trade show and market it to potential exhibitors and visitors (Jung, 2005). Exhibitors exhibit at trade shows to enhance sales, improve their public image, network, and motivate employees (Friedman, 2009; Whitfield & Webber, 2011). Visitors are the customers of both organizers and exhibitors and they attend trade shows to gather information about the market, meet potential suppliers, and make alternative purchases (Godar & O’Connor, 2001; Munuera & Ruiz, 1999).

Although the three key stakeholders have been studied previously, (a) they have not been studied simultaneously and (b) the factors (i.e., self-performance, organizers, and visitors) that theoretically lead to exhibitors’ positive behavioral intention have not been simultaneously addressed. The majority of previous studies on exhibitors’ behavioral intention has focused on their self-performance (e.g., Dekimpe, François, Gopalakrishna, Lilien, & van den Bulte, 1997; Gopalakrishna & Lilien, 1995; Hansen, 2004). The premise of these studies is that exhibitors participate in trade shows to make sales, get leads, build their reputation, and more (Sashi & Perretty, 1992). Reason would indicate that the degree to which these self-performance goals are achieved would affect exhibitors’ positive behavioral intention. Since most of these goals are associated with visitors, researchers have also addressed the exhibitors’ perception of visitors’ impact (Borghini, Golfitto, & Rinallo, 2006; Li, 2007). Findings suggest that exhibitors perceive
a successful exhibit to involve demonstration, presentation and interaction with visitors (Seringhaus & Rosson, 2004).

In recent years researchers have realized that trade shows are about more than exhibitors and visitors and started to study the impacts of organizers on exhibitors’ satisfaction and positive behavioral intention (e.g., Gottlieb et al., 2011; Jin & Weber, 2013). For example, Jin et al. (2012) found that exhibitors’ perception of the quality of service offered by organizers is critical for the successful and sustainable development of trade shows. Thus, satisfaction with organizers is likely an indispensable factor in determining exhibitors’ positive behavioral intention.

While researchers have studied individual factors that affect positive behavioral intention or other outcomes of exhibiting at trade shows, none have assessed self-performance, organizers, and visitors simultaneously and examined their relative importance when studying exhibitors’ positive behavioral intention. Thus, the purpose of this study is twofold. First, drawing from the literature on key stakeholders in the trade show industry (i.e., visitors, exhibitors, and organizers), three determinants of exhibitors’ positive behavioral intention are proposed. Satisfaction with self-performance, satisfaction with organizers, and satisfaction with visitors are all expected to contribute significantly to exhibitors’ positive behavioral intention (Figure 1). Second, using survey data from 594 exhibitors at 3 international trade shows held in China, the proposed model was tested and 3 hypotheses were examined.
Literature Review

Behavioral intention

Behavioral intention has been identified as an important construct in measuring an organization’s success (Baker & Crompton, 2000; Flavian, Martinez, & Polo, 2001; Yoon & Uysal, 2005). In the service industry, behavioral intention represents the likelihood that the customer will re-purchase from the service provider in the near future and support the service provider with positive word-of-mouth comments (Hutchinson et al., 2011; Kumar & Grisaffe, 2004). Thus, the two most common indicators of positive behavioral intention are willingness to return and word-of-mouth effect (Jung, 2005; Servert, Wang, Chen, & Breiter, 2007).
In the trade show context, willingness to return is a key indicator of how well the trade show organizers do with retaining existing exhibitors and visitors. Retaining existing customers is more cost-effective than advertising and a high turn-over rate often corresponds to perceptions of bad service. Ensuring that most customers are willing to return to the next trade show is one of the organizer’s key goals. On the other hand, word-of-mouth effect has been one of the strongest predictors for shaping the future client base (Brown & Reingen, 1987; Servert et al., 2007). Word-of-mouth is free advertising and very effective in attracting new customers. In order to have sustainable development, organizers need to be able to attract new customers and retain existing customers and thus improve the positive behavioral intention of exhibitors. The first step, however, is to identify the key dimensions that influence exhibitors’ positive behavioral intention so that organizers know where to spend their time and money.

**Determinants of Exhibitors’ Positive Behavioral Intention**

* Satisfaction with Self-Performance

Each exhibitor has its own objectives for exhibiting at a trade show. The degree to which these objectives are met corresponds to self-performance and influences exhibitors’ positive behavioral intention (Hansen, 2004). Early studies proposed that exhibitors attend trade shows to primarily sell products and services and used numbers associated with selling activities to measure exhibitors’ self-performance (e.g., Dekimpe et al., 1997; Gopalakrishna & Lilien, 1995). Researchers have since found that exhibitors
attend trade shows not only to sell, but also to test new products and to network (Martínez & Martínez, 2010; Seringhaus & Rosson, 2004).

Early researchers (e.g., Kerin & Cron, 1987) treated non-sales objectives as unidimensional, which is problematic in that each exhibitor has his or her unique set of non-sales objectives. For example, some exhibitors use trade shows as a platform to introduce new products and educate the public; networking in this instance might not be a key factor in determining the exhibitor’s positive behavioral intention. Other exhibitors may participate in prominent trade shows to showcase their leadership in the industry. In these instances media exposure will be more valuable than the service provided by the trade show organizers. Hence, using a single indicator to measure exhibitors’ non-sales performance is misleading and fails to provide meaningful managerial implications. To provide a comprehensive framework to capture exhibitors’ self-performance, Hansen (2004) set up an exhibitor performance construct, which included one outcome-based dimension (sales-related activities) and four behavior-based dimensions (information-gathering activities, image-building activities, motivation activities, and relationship-building activities). His research indicated that all five dimensions contributed significantly to exhibitors’ overall performance. Thus, the following hypothesis is proposed:

H1: Satisfaction with self-performance has a significant positive effect on exhibitors’ positive behavioral intention.
**Satisfaction with Organizers**

An event is essentially a service because it consists of intangible experiences of finite duration in a managed atmosphere (Getz, O’Neil, & Carlsen, 2001). Similar to other types of services, an event such as a trade show is produced and consumed simultaneously, highly heterogeneous, and very difficult to store. Hence, exhibitors and visitors want organizers of trade shows to provide high quality service. Kijewski, Yoon, and Young (1993) found that the top three objectives for exhibitors to attend a trade show are developing new prospects in existing markets, supporting selling activities, and enhancing relationship with current customers. The top three objectives for visitors to attend a trade show are discovering new products, contacting potential suppliers, and seeking new ideas and carrying out market research (Munuera & Ruiz, 1999). These objectives are all related to the service nature of trade shows. Thus, satisfaction with organizers corresponds to exhibitors’ perception of service quality delivered by organizers.

Researchers have been exploring different taxonomies to describe the nature of service quality since the 1980s. Grönroos (1982) was the first to develop a service quality model, which was later followed by other conceptualizations of service quality (e.g. Parasuraman, Zeithaml, & Berry, 1985). Brady and Cronin (2001), for example, suggested that consumers aggregate their evaluations on each of the sub-dimensions to arrive at a conclusion on each of the primary dimensions of service quality. These conclusions lead to an overall service quality perception, which is constructed by evaluating different service dimensions at multiple levels (Martínez & Martínez, 2010).
Brady and Cronin’s model has been applied in the tourism context as well as the trade show context (e.g., Caro & Garcia, 2008; Gottlieb et al., 2011) and the results indicate that the model fits well with good reliability and validity. In these studies the primary dimensions as well as the sub-dimensions were kept intact, while the specific items under each sub-dimension were modified to fit the tourism or trade show context. Gottlieb et al. (2011) studied the impact of service quality on positive behavioral intentions at trade shows. They found that higher service quality led to visitors’ positive perception of trade show effectiveness and that service quality and trade show effectiveness are both positively related to the intention to participate in future trade shows. The authors argued that by treating trade shows as service encounters, the organizers need to focus on service quality and service outcome in order to provide a successful trade show. Jin et al. (2010) studied the relationship quality between trade show organizers and exhibitors and found that relationship quality is essential to exhibitors’ trade show performance. Several other researchers also found that satisfaction with organizers is one of the strongest predictors of exhibitors’ positive behavioral intention (Jin & Weber, 2013; Jung, 2005). Thus, the following hypothesis is proposed:

H2: Satisfaction with organizers has a significant positive effect on exhibitors’ positive behavioral intention.

**Satisfaction with Visitors**

Exhibitors attend trade shows to meet visitors (Blythe, 2002), but the degree to which visitors affect exhibitors’ satisfaction and positive behavioral intention has been ignored. Researchers have assumed that finding business partners and signing contracts
were the only objectives of trade show exhibitors and they used conversion efficiency to measure exhibitors’ performance (e.g., Dekimpe et al., 1997; Gopalakrishna & Lilien, 1995). However, B2B transactions often take several months, if not years, to complete. And, some of the leads obtained at the trade show might lead to nowhere while others might come to fruition many years in the future. Thus, focusing on short-term sales numbers is misleading.

In addition, researchers have realized that selling activities are just one part of a set of complex interactions taking place between exhibitors and visitors (Seringhaus & Rosson, 2004). Godar and O’Connor (2001) found that attendees at trade shows prioritize non-sales activities such as information search and relation building. The shift from sales activities to non-sales activities requires exhibitors to reexamine their trade show strategies and evaluate their performance through a more comprehensive perspective (Hansen, 1999). Researchers also have found that the characteristics of visitors (e.g., job ranking, purchase authority, and previous experience) have a significant effect on exhibitors’ overall satisfaction and positive behavioral intention (Bello, 1992; Kang & Schrier, 2011; Bello & Lohtia, 1993). Rather than using a unilateral index such as conversion efficiency or sales numbers, then, this study adopted a comprehensive approach by focusing on exhibitors’ satisfaction with visitors and its effect on exhibitors’ positive behavioral intention. The following hypothesis is proposed:

H3: Satisfaction with visitors has a significant positive effect on exhibitors’ positive behavioral intention.
Methods

A 46-item (3 dimension) exhibitor satisfaction scale tested for validity and reliability through multiple pilot tests (see Chapters 2 and 3) was used to assess exhibitors’ satisfaction with their self-performance, the service quality provided by organizers, and visitors. To detect subtle differences in exhibitors’ satisfaction and positive behavioral intention, the 7-point Likert scale originally used in the pilot tests of the scale was changed to a 10-point Likert scale. The modified survey was distributed to a sample of 750 exhibitors at 3 trade shows in China (Table 1). Multiple trade show staff were involved with the data collection process and were asked to follow the same protocol used in the pilot study\(^1\). Overall, 594 valid responses were obtained, yielding a 79.2% response rate.

Structural equation modeling (SEM) was used to examine the relationships between the three dimensions and positive behavioral intention in the proposed model (see Figure 1). Previous research has found SEM to be a statistical technique that is superior to others when testing the level at which a proposed model accurately accounts for the relationships that are observed in a sample (Kline, 1998). The goodness of fit for the proposed model was examined to test the proposed model. Standardized path coefficients were used to examine the relative strength of each of the three dimensions on exhibitors’ positive behavioral intention.

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\(^1\) Exhibitors were approached the last day of the trade show. On-site personnel with the highest ranking were asked to fill out the questionnaire. Multiple trade show staff were involved with the data collection process. They were provided instructions regarding face-to-face interviewing, a script to follow, and asked to keep their opinions to a minimum.
Variables and Measurements

Based on the literature reviewed, two variables were used to measure exhibitors’ positive behavioral intention: willingness to return and word-of-mouth effect. For willingness to return, exhibitors were asked whether or not they would return to the same trade show next year. For word-of-mouth effect, exhibitors were asked whether or not they would recommend the trade show to their colleagues and other companies. Both variables were measured using a 10-point Likert scale (1 = least likely; 10 = most likely).

Self-performance was measured using Hansen’s (1999) five-dimension conceptual framework. Hansen’s framework includes one outcome-based dimension (sales-related activities) and four behavior-based dimensions (information-gathering activities, image-building activities, motivation activities, and relationship-building activities). This five-dimension framework emphasizes non-sales activities and is regarded as one of the most comprehensive studies on exhibitors’ self-performance (Seringhaus & Rosson, 2004). Specifically, exhibitors were asked to rate their level of satisfaction with each statement using a 10-point, 17-item scale (1 = extremely poor, 10 = extremely excellent).

Satisfaction with organizers was measured using 17 items that were adopted from Brady and Cronin’s (2001) multi-level service quality model. Brady and Cronin’s model has been used in the trade show context and has exhibited excellent reliability and validity (Gottlieb et al., 2011). The multi-level model consists of three dimensions (i.e., interaction quality, environment quality, and outcome quality) and each of the dimensions has three sub-dimensions. Interaction quality contains attitude, behavior, and
expertise; environment quality contains ambient conditions, design, and social factors; and outcome quality contains waiting time, tangibles, and valence. The sub-dimension waiting time was dropped because it does not apply to the trade show industry. Exhibitors were asked to rate their level of agreement using a 10-point Likert scale (1 = strongly disagree, 10 = strongly agree).

A 10-point, 12-item Likert scale (1 = extremely poor, 10 = extremely excellent) drawn from a study conducted by the author was used to enable exhibitors to rate their satisfaction with visitors. The scale covers four sub-dimensions of exhibitors’ satisfaction with visitors: visitors’ job level, job function, purchasing authority, and communication. All four sub-dimensions have been found to affect exhibitors’ satisfaction with visitors (Bello, 1992; Bello & Lohtia, 1993; Rosson & Seringhaus, 1995).

Executives’ experiences, values, and personalities greatly influence their interpretations of the situations they face and, in turn, affect their strategic choices (Hambrick, 2007). Previous studies have found that the values and cognitive bases of managers are a function of their work background and experience (Carpenter, Geletkanycz, & Sanders, 2004; Geletkanycz & Black, 2001; Kang & Schrier, 2011). Furthermore, this study used data from three trade shows. To control for the effect of different trade shows, the 2013 China International Games & Amusement Fair was used as the baseline and two dummy variables (i.e., “app14” for the China Household Electrical Appliances Trade Fair and “game14” for the China International Games & Amusement Exhibition) were created to control for the effects of the other trade shows. In total, five control variables (three Likert scale and two dichotomous) were included in
Data Analysis and Results

A detailed description of the methods and results of the survey items validation can be found in Chapter 3. After purification and validation, the final version of the survey exhibited good reliability and validity and included 17 items relating to satisfaction with organizers, 17 items for the satisfaction with self-performance construct, 12 items for satisfaction with visitors, and 2 items for positive behavioral intention.

Sample Characteristics

Overall, 594 valid responses were obtained, yielding a 79.2% response rate. Missing values, outliers, and the distribution of every variable were examined. Keeping in mind the large sample size and the complexity of the model (Allison, 1987; West, Finch, & Curran, 1995), no serious violations of statistical analysis were found.
Table 1. Information and demographic profile of the trade shows

<table>
<thead>
<tr>
<th></th>
<th>2013 China International Games &amp; Amusement Fair (n=91)</th>
<th>2014 China International Games &amp; Amusement Exhibition (n=109)</th>
<th>2014 China Household Electrical Appliances Trade Fair (n=394)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location</td>
<td>Zhongshan, China</td>
<td>Guangzhou, China</td>
<td>Zhongshan, China</td>
</tr>
<tr>
<td>Frequency</td>
<td>Annually</td>
<td>Annually</td>
<td>Six-monthly</td>
</tr>
<tr>
<td>Edition</td>
<td>6&lt;sup&gt;th&lt;/sup&gt;</td>
<td>9&lt;sup&gt;th&lt;/sup&gt;</td>
<td>11&lt;sup&gt;th&lt;/sup&gt;</td>
</tr>
<tr>
<td>Exhibition Area (m&lt;sup&gt;2&lt;/sup&gt;)</td>
<td>44,000</td>
<td>80,000</td>
<td>45,000</td>
</tr>
<tr>
<td>Number of Exhibitors</td>
<td>260</td>
<td>350</td>
<td>850</td>
</tr>
<tr>
<td>Number of Visitors</td>
<td>20,000</td>
<td>20,000</td>
<td>80,000</td>
</tr>
<tr>
<td>Job Function</td>
<td>Sales</td>
<td>69%</td>
<td>53%</td>
</tr>
<tr>
<td></td>
<td>Technology</td>
<td>1%</td>
<td>9%</td>
</tr>
<tr>
<td></td>
<td>Management</td>
<td>20%</td>
<td>30%</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>10%</td>
<td>9%</td>
</tr>
<tr>
<td>Job Ranking</td>
<td>President</td>
<td>0%</td>
<td>3%</td>
</tr>
<tr>
<td></td>
<td>General Manager</td>
<td>14%</td>
<td>33%</td>
</tr>
<tr>
<td></td>
<td>Manager</td>
<td>51%</td>
<td>41%</td>
</tr>
<tr>
<td></td>
<td>Staff</td>
<td>27%</td>
<td>22%</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>8%</td>
<td>0%</td>
</tr>
<tr>
<td>Participation Times of this Trade Show</td>
<td>1</td>
<td>18%</td>
<td>33%</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>15%</td>
<td>19%</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>16%</td>
<td>13%</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>15%</td>
<td>11%</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>12%</td>
<td>7%</td>
</tr>
<tr>
<td></td>
<td>6 or more</td>
<td>25%</td>
<td>17%</td>
</tr>
<tr>
<td>Participation Times of Trade Shows in general</td>
<td>1</td>
<td>10%</td>
<td>12%</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>9%</td>
<td>13%</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>7%</td>
<td>7%</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>1%</td>
<td>6%</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>5%</td>
<td>8%</td>
</tr>
<tr>
<td></td>
<td>6 or more</td>
<td>68%</td>
<td>55%</td>
</tr>
</tbody>
</table>
In terms of the distribution of socio-demographic variables, there were no major differences between the three trade shows (Table 1). The only exception was with the 2014 China Household Electrical Appliances Trade Fair, which had a higher percentage of respondents with high-ranking positions than the other two trade shows. Averaged across the three trade shows, approximately 30% of the respondents had a background in management and the remaining two thirds mostly had (63.1%) a background in sales. Most (84.2%) respondents reported being managers or higher. As for previous trade show experience, 82% of the respondents were repeat customers and 49% had attended 6 or more trade shows previously. Hence, most respondents reported having extensive trade show experience, which suggests that they should be able to express their opinions about various aspects of a trade show. Table 2 lists the means and standard deviations of the sub-dimensions within satisfaction with self-performance, satisfaction with organizers, satisfaction with visitors, and behavioral intention.
Table 2. Means and standard deviations of items by trade shows

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Performance</td>
<td>Sales</td>
<td>6.313(2.360)</td>
<td>6.662(2.334)</td>
<td>6.995(.903)</td>
</tr>
<tr>
<td></td>
<td>Information Gathering</td>
<td>6.545(2.205)</td>
<td>6.647(2.158)</td>
<td>7.258(.788)</td>
</tr>
<tr>
<td></td>
<td>Relationship Building</td>
<td>7.050(2.154)</td>
<td>7.128(2.241)</td>
<td>7.252(.850)</td>
</tr>
<tr>
<td></td>
<td>Image Building</td>
<td>7.537(2.154)</td>
<td>7.532(2.180)</td>
<td>7.707(.852)</td>
</tr>
<tr>
<td></td>
<td>Motivation</td>
<td>7.091(2.260)</td>
<td>7.210(2.219)</td>
<td>7.823(.862)</td>
</tr>
<tr>
<td>Organizers</td>
<td>Interaction</td>
<td>6.970(2.234)</td>
<td>7.626(2.012)</td>
<td>7.253(.786)</td>
</tr>
<tr>
<td></td>
<td>Environment</td>
<td>6.596(2.086)</td>
<td>6.810(2.044)</td>
<td>7.179(.834)</td>
</tr>
<tr>
<td></td>
<td>Outcome</td>
<td>6.377(2.315)</td>
<td>6.842(2.255)</td>
<td>7.253(.754)</td>
</tr>
<tr>
<td>Visitors</td>
<td>Job Level</td>
<td>6.778(2.093)</td>
<td>7.016(2.067)</td>
<td>7.211(.883)</td>
</tr>
<tr>
<td></td>
<td>Job Function</td>
<td>6.809(2.015)</td>
<td>7.000(2.111)</td>
<td>7.209(.869)</td>
</tr>
<tr>
<td></td>
<td>Purchasing Authority</td>
<td>6.223(2.309)</td>
<td>6.661(2.328)</td>
<td>7.042(.905)</td>
</tr>
<tr>
<td></td>
<td>Communication</td>
<td>6.267(2.264)</td>
<td>6.878(2.203)</td>
<td>7.225(.887)</td>
</tr>
<tr>
<td>Behavioral Intention</td>
<td>Willingness to Return</td>
<td>7.500(2.544)</td>
<td>7.326(2.729)</td>
<td>8.028(1.201)</td>
</tr>
<tr>
<td></td>
<td>Word-of-mouth</td>
<td>6.980(2.714)</td>
<td>7.101(2.869)</td>
<td>8.053(1.325)</td>
</tr>
</tbody>
</table>
Measurement Model

Since the reliability and validity of the survey instrument have been established (see Chapter 3), the items within a sub-dimension were calculated to create an index. These indices were treated as indicators representing a construct. This procedure helps to decrease multicollinearity among indicators in the confirmatory factor analysis (CFA) of the measurement model (Yoon & Uysal, 2005). Thus, positive behavioral intention in the proposed model was treated as a second-order construct composed of three dimensions and twelve indicators.

A confirmatory measurement model needs be evaluated and adjusted before measurement and structural equation models are examined simultaneously (Anderson & Gerbing, 1988). So, first, each construct in the measurement model was analyzed. All goodness-of-fit statistics were satisfactory and all path coefficients were above the .30 cutoff value. Second, to test the measurement model, a CFA was conducted with the posited relationships of the observed indicators to the latent constructs specified and all constructs allowed to be inter-correlated freely. A total of 12 indicators for exogenous variables and 2 indictors for endogenous variables were used in the measurement model.

Following the guidelines of Yoon and Uysal (2005), three types of goodness-of-fit statistics were utilized to examine the model fit: absolute fit measures (AFM), incremental fit measures (IFM), and parsimonious fit measures (PFM). An AFM was used to evaluate how well the proposed model fit the sample data. An IFM was used to compare the target model with a baseline model, and a PFM was used to detect whether model fit has been achieved by over fitting the data with too many parameters (Hu &
Bentler, 1995). A good model fit requires the Incremental Fit Index (IFI), Tucker-Lewis Index (TLI), and Confirmatory Fit Index (CFI) to be higher than .90; and Root Mean Square Error of Approximation (RMSEA) to be lower than .10 (Bentler, 1990; Hu & Bentler, 1998; Steiger, 1990; Tucker & Lewis, 1973). While no threshold levels have been recommended for PNFI, Mulaik et al. (1989) noted that it is possible to accept a model fit if PNFI is low, as long as other goodness of fit indices achieve values over .90. The $p$ value of the chi-square test was not examined because it is sensitive to large sample size (Bentler & Bonett, 1980). The results of the CFA showed that all three types of goodness of fit indices are satisfactory: $\chi^2 (69) = 388.442$, Root Mean Square Error of Approximation (RMSEA) = 0.090, Comparative Fit Index (CFI) = 0.962, Tucker-Lewis Index (TLI) = .942, Incremental Fit Index (IFI) = 0.962, and Parsimonious Normed Fit Index (PNFI) = 0.627 (Table 3).

Table 3. Goodness-of-fit indices for the measurement and structural model (N=594)

<table>
<thead>
<tr>
<th></th>
<th>AFM</th>
<th>IFM</th>
<th>PFM</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\chi^2$</td>
<td>(69) 388.442</td>
<td>.090</td>
<td>.962</td>
</tr>
<tr>
<td>Measurement Model</td>
<td>RMSEA</td>
<td>IFI</td>
<td>TLI</td>
</tr>
<tr>
<td>Structural Model</td>
<td>(142) 763.191</td>
<td>.088</td>
<td>.935</td>
</tr>
</tbody>
</table>

Note: AFM= absolute fit measures; IFM = incremental fit measures; PFM = parsimonious fit measures; $\chi^2$=Chi-square; RMSEA=root mean square error of approximation; CFI=comparative fit index; IFI=incremental fit index; PNFI=parsimonious normed fit index.

After assessing the overall measurement model, the latent constructs were examined using standardized factor loadings, composite reliability, average variance
extracted (AVE), and squared multiple correlation (SMC; Table 4). All factor loadings were significant at the .001 level. The composite reliability of all four constructs was above the recommended level of 0.70 (Fornell & Larcker, 1981). The SMC values of the 14 indicators exceeded .65, which indicates that a good portion of the variances in the indicators is explained by latent constructs. Furthermore, Average Variance Extracted (AVE) for all of the factors was well above the .50 cutoff value. Thus, it can be inferred that the proposed measurement model fits the data.

Table 4. Confirmatory Factor Analysis results for the measurement model

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Sub-dimension</th>
<th>Standardized Factor Loading</th>
<th>Composite Reliability</th>
<th>Average Variance Extracted</th>
<th>Squared Multiple Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive Behavioral Intention</td>
<td>Willingness to Return</td>
<td>.926</td>
<td>.931</td>
<td>.871</td>
<td>.858</td>
</tr>
<tr>
<td></td>
<td>Word-of-mouth</td>
<td>.940</td>
<td></td>
<td></td>
<td>.883</td>
</tr>
<tr>
<td>Satisfaction with Self-Performance</td>
<td>Sales</td>
<td>.823</td>
<td>.921</td>
<td>.701</td>
<td>.678</td>
</tr>
<tr>
<td></td>
<td>Information Gathering</td>
<td>.829</td>
<td></td>
<td></td>
<td>.688</td>
</tr>
<tr>
<td></td>
<td>Relationship Building</td>
<td>.884</td>
<td></td>
<td></td>
<td>.781</td>
</tr>
<tr>
<td></td>
<td>Image Building</td>
<td>.828</td>
<td></td>
<td></td>
<td>.686</td>
</tr>
<tr>
<td></td>
<td>Motivation</td>
<td>.822</td>
<td></td>
<td></td>
<td>.675</td>
</tr>
<tr>
<td>Satisfaction with Organizers</td>
<td>Interaction</td>
<td>.835</td>
<td>.911</td>
<td>.774</td>
<td>.697</td>
</tr>
<tr>
<td></td>
<td>Environment</td>
<td>.867</td>
<td></td>
<td></td>
<td>.753</td>
</tr>
<tr>
<td></td>
<td>Outcome</td>
<td>.934</td>
<td></td>
<td></td>
<td>.873</td>
</tr>
<tr>
<td>Satisfaction with Visitors</td>
<td>Job Level</td>
<td>.843</td>
<td>.938</td>
<td>.791</td>
<td>.711</td>
</tr>
<tr>
<td></td>
<td>Job Function</td>
<td>.873</td>
<td></td>
<td></td>
<td>.761</td>
</tr>
<tr>
<td></td>
<td>Purchase Authority</td>
<td>.938</td>
<td></td>
<td></td>
<td>.880</td>
</tr>
<tr>
<td></td>
<td>Communication</td>
<td>.901</td>
<td></td>
<td></td>
<td>.811</td>
</tr>
</tbody>
</table>
Structural Equation Model

The proposed structural model has three exogenous constructs (i.e., satisfaction with self-performance, satisfaction with organizers, and satisfaction with visitors), one endogenous construct (i.e., positive behavioral intention), and five control variables (i.e., respondents’ job ranking, previous experience with this particular trade show, previous experience with trade shows, app14, and game14). The three exogenous constructs were allowed to correlate with each other, while three paths were proposed to address the three hypotheses: a) from satisfaction with self-performance to positive behavioral intention; b) from satisfaction with organizers to positive behavioral intention; and c) from satisfaction with visitors to positive behavioral intention.

As discussed previously, the $p$ value of the chi-square test is heavily influenced by sample size. Thus, other goodness-of-fit statistics were used to evaluate the model fit. The results showed that all three types of goodness of fit indices are satisfactory: $\chi^2 (142) = 763.191$, Root Mean Square Error of Approximation (RMSEA) = 0.088, Comparative Fit Index (CFI) = 0.935, Tucker-Lewis Index (TLI) = 0.913, Incremental Fit Index (IFI) = 0.935, and Parsimonious Normed Fit Index (PNFI) = 0.689 (Table 3).

Table 5 lists the standardized path coefficients of the structural model. All standardized path coefficients are significant at the .05 level except for the paths between positive behavioral intention and the four control variables (i.e., app14, game14, job ranking, and previous experience with trade shows). A visual diagram depicting the structural model is shown in Figure 2. For clear illustration, error structures and control variables were omitted in the figure. Satisfaction with organizers is the strongest...
predictor of exhibitors’ positive behavioral intention, with a standardized path coefficient of .442. The other two dimensions (i.e., satisfaction with self-performance and satisfaction with visitors) also contributed significantly to exhibitors’ positive behavioral intention. Over two thirds (68.0%) of the variance in exhibitors’ positive behavioral intention could be explained by the exogenous constructs.

Table 5. Path coefficients in the structural model

<table>
<thead>
<tr>
<th>Path From</th>
<th>To</th>
<th>Standardized coefficient</th>
<th>t-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sat.(^1) with Self-performance</td>
<td>Positive behavioral intention</td>
<td>.215</td>
<td>3.285**</td>
</tr>
<tr>
<td>Sat. with Organizers</td>
<td>Positive behavioral intention</td>
<td>.442</td>
<td>6.161***</td>
</tr>
<tr>
<td>Sat. with Visitors</td>
<td>Positive behavioral intention</td>
<td>.181</td>
<td>2.354*</td>
</tr>
<tr>
<td>App14</td>
<td>Positive behavioral intention</td>
<td>.032</td>
<td>.883</td>
</tr>
<tr>
<td>Game14</td>
<td>Positive behavioral intention</td>
<td>-.053</td>
<td>-1.448</td>
</tr>
<tr>
<td>Previous Experience with this Trade Show</td>
<td>Positive behavioral intention</td>
<td>.230</td>
<td>5.171***</td>
</tr>
<tr>
<td>Previous Experience with Trade Shows</td>
<td>Positive behavioral intention</td>
<td>-.032</td>
<td>-.722</td>
</tr>
<tr>
<td>Respondents’ Job Ranking</td>
<td>Positive behavioral intention</td>
<td>.011</td>
<td>.387</td>
</tr>
<tr>
<td>Positive behavioral intention</td>
<td>Willingness to Return</td>
<td>.921</td>
<td>n/a</td>
</tr>
<tr>
<td>Positive behavioral intention</td>
<td>Word-of-mouth</td>
<td>.939</td>
<td>34.207***</td>
</tr>
<tr>
<td>Sat. with Self-performance</td>
<td>Sales</td>
<td>.826</td>
<td>n/a</td>
</tr>
<tr>
<td>Sat. with Self-performance</td>
<td>Information Gathering</td>
<td>.828</td>
<td>23.462***</td>
</tr>
<tr>
<td>Sat. with Self-performance</td>
<td>Relationship Building</td>
<td>.885</td>
<td>25.970***</td>
</tr>
<tr>
<td>Sat. with Self-performance</td>
<td>Image Building</td>
<td>.827</td>
<td>23.288***</td>
</tr>
<tr>
<td>Sat. with Self-performance</td>
<td>Motivation</td>
<td>.818</td>
<td>22.901***</td>
</tr>
<tr>
<td>Sat. with Organizers</td>
<td>Interaction</td>
<td>.837</td>
<td>n/a</td>
</tr>
<tr>
<td>Sat. with Organizers</td>
<td>Environment</td>
<td>.870</td>
<td>26.263***</td>
</tr>
<tr>
<td>Sat. with Organizers</td>
<td>Outcome</td>
<td>.931</td>
<td>29.258***</td>
</tr>
<tr>
<td>Sat. with visitors</td>
<td>Visitors’ Job Ranking</td>
<td>.843</td>
<td>n/a</td>
</tr>
<tr>
<td>Sat. with visitors</td>
<td>Visitors’ Job Function</td>
<td>.872</td>
<td>45.942***</td>
</tr>
<tr>
<td>Sat. with visitors</td>
<td>Visitors’ Purchase Authority</td>
<td>.938</td>
<td>30.073***</td>
</tr>
<tr>
<td>Sat. with visitors</td>
<td>Communication</td>
<td>.900</td>
<td>27.982***</td>
</tr>
</tbody>
</table>

\(^1\)Sat. = Satisfaction
Figure 2. Structural model with standardized path coefficients

- Sales
  - Information Gathering
  - Relationship Building
  - Image Building
  - Motivation
  - Interaction
  - Environment
  - Outcome
  - Job Function
  - Job Ranking
  - Purchase Authority
  - Communication

Positive Behavioral Intention
  - Word-of-Mouth

Willingness to Return
  - Satisfaction with Visitors
    - Satisfaction with Organizers
      - Satisfaction with Self-Performance

Path Coefficients:
- 0.826
- 0.828
- 0.939
- 0.921
- 0.837
- 0.870
- 0.931
- 0.872
- 0.843
- 0.938
- 0.900
- 0.215
- 0.442
- 0.181
Discussion and Implications

The purpose of this study was to test a proposed model indicating that satisfaction with self-performance, satisfaction with organizers, and satisfaction with visitors will be significantly, positively, and directly related to exhibitors’ positive behavioral intention. The results offered support for the structural model.

Hypothesis 1 proposed that satisfaction with self-performance has a significant positive effect on exhibitors’ positive behavioral intention. The result showed that the standardized path coefficient from satisfaction with self-performance to positive behavioral intention was .215 and significant at the .05 level (t-value = 3.285, p = .001). Thus, hypothesis 1 is supported.

Hypothesis 2 proposed that satisfaction with organizers has a significant positive effect on exhibitors’ positive behavioral intention. The result showed that the standardized path coefficient from satisfaction with organizers to positive behavioral intention was .442 and significant (t-value = 6.161, p = .000). Thus, hypothesis 2 is supported.

Hypothesis 3 proposed that satisfaction with visitors has a significant positive effect on exhibitors’ positive behavioral intention. The result showed that the standardized path coefficient from satisfaction with visitors to positive behavioral intention was .181 and significant (t-value = 2.354, p = .019). Thus, hypothesis 3 is supported.

In line with previous research (Lee & Beeler, 2009; Jin & Weber, 2013; Jung, 2005), this study found that satisfaction with organizers (i.e., service quality) is the
dominant predictor of exhibitors’ positive behavioral intention. This result challenges the notion that exhibitors attend trade shows only for sales activities. Trade shows by nature are a service. In order to secure existing customers and attract new customers, organizers need to focus on the delivery of their service and improve upon the quality of their interactions, the environment, and service outcomes. Satisfaction with self-performance and satisfaction with visitors also positively affected exhibitors’ positive behavioral intention. In combination, these three dimensions explained approximately 65% of the variance in exhibitors’ positive behavioral intention.

Furthermore, previous experience with the current trade show, one of the five control variables, also significantly affected positive behavioral intention. Previous experience with this particular trade show had a significant positive effect on exhibitors’ positive behavioral intention, which is in line with findings from previous research on loyalty that indicates more previous experience with an organization leads to a higher likelihood of return and referral (Yoon & Uysal, 2005). It is important to note that the four additional control variables (i.e., app 14, game 14, job ranking, previous experience with trade shows in general) turned out to be non-significant. The non-significant effects of app 14 and game 14 indicate that the path coefficients are almost identical across the three trade shows, which suggests that the proposed model works across a wide range of trade shows.

Overall, the model proposed in this study showed satisfactory reliability, validity, and goodness-of-fit statistics. Drawn from Hansen’s (2004) five-dimension framework, Brady and Cronin’s (2001) hierarchical service quality model, and a measurement scale on satisfaction with visitors developed by the author, the model accounted for the three
key stakeholders in the trade show industry simultaneously with 17 items relating to satisfaction with organizers, 17 items representing satisfaction with self-performance, and 12 items for satisfaction with visitors. Previous studies have only focused on one or two stakeholders (e.g., Dekimpe et al., 1997; Gopalakrishna & Lilien, 1995; Hansen, 2004; Jin et al., 2012). The results of this study showed that exhibitors, organizers, and visitors all have a significant impact on exhibitors’ positive behavioral intention. Thus, for the first time, the model proposed in this study showcased the importance of considering all three key stakeholders when studying exhibitors’ positive behavioral intention.

**Practical Implications**

The findings also have significant managerial implications for trade show organizers. Satisfaction with self-performance, satisfaction with organizers, and satisfaction with visitors contributed significantly to exhibitors’ positive behavioral intention and are within trade show organizers’ control. The starting point should be with the three sub-dimensions of service quality (i.e., interaction quality, environment quality, and outcome quality). Organizers can ensure that exhibitors’ voice is heard loud and clear and that their problems are addressed in a timely manner. In addition, organizers can provide an environment that facilitates exhibitors’ agenda (e.g., giving out awards for the best booth) at the trade show. And, organizers can enhance outcome quality by helping exhibitors reap what they sowed by following up with visitors.

As for exhibitors’ self-performance, organizers need to identify their major objectives and allocate their limited resources accordingly. For example, if a large portion
of exhibitors participate in the trade show to break into a new market, organizers should then recruit high quality domestic and overseas buyers and arrange special networking sessions that allow them to get to know one another. Organizers could also work on exhibitors’ satisfaction with visitors. A major responsibility of organizers is to facilitate the relationship-building process between exhibitors and visitors at different stages of an event (Jin & Weber, 2013). The results of this study indicated that visitors’ job ranking, job function, purchase authority, and community quality all positively affected exhibitors’ positive behavioral intention. Organizers should build on this finding by recruiting visitors with fitting positions and purchasing power and then ensuring that exhibitors will have plenty of opportunities to interact with them. Organizers could even pay high profile international buyers (i.e., visitors) to attend the trade show to increase exhibitors’ positive behavioral intention.

**Limitations and Direction for Future Studies**

This study has several limitations. First, positive behavioral intention might not transform into actual behavior. Many factors (e.g., budget cuts, time conflict, new management, and change in strategy) might come into play during the one-year or six-month gap between trade shows. Furthermore, some effects of trade shows are delayed and might influence exhibitors’ positive behavioral intention long after the trade show. For example, securing qualified leads during the trade show might encourage exhibitors to return. However, if these qualified leads fail to convert into actual sales through follow-up activity, the exhibitor might end up disappointed with the trade show and
change his or her intention to return. In some industries where the purchase price is very high, it can take months or even years for exhibitors to realize the effects of a trade show (Seringhaus & Rosson, 2004). Hence, future studies should adopt a longitudinal design and study the factors that impact exhibitors’ positive behavioral intention for an extended period of time after the trade show. Doing so likely would be valuable to organizers interested in ensuring exhibitors’ positive behavioral intention.

Second, this study addressed the three key determinants of exhibitors’ positive behavioral intention: satisfaction with self-performance, satisfaction with organizers, and satisfaction with visitors. The results showed that all three constructs contributed significantly to exhibitors’ positive behavioral intention and together they explained a good portion of the variance of exhibitors’ positive behavioral intention. However, there are other factors that could influence exhibitors’ positive behavioral intention. For example, previous studies have found that members of the local community, attractiveness, and accessibility of the event venue could impact attendees’ participation experience (Oppermann & Chon, 1997; Zhang, Leung, & Qu, 2007). Thus, future studies should include these factors and examine their significant effect and relative strength on exhibitors’ positive behavioral intention.

Third, the measurement instrument used in this study consisted of 46 items, which might not be feasible for trade show organizers to use because exhibitors and visitors do not like lengthy surveys. Future research should modify the model established in this study and develop a short-version that is more amenable to the trade show environment. Stepwise comparisons could be conducted between the short-version model and the full model. Items could be dropped as long as there is no significant drop in goodness-of-fit
statistics. The goal is to achieve a balance between being parsimonious and having strong explaining power. Depending on objectives, resources, and budgets, trade show organizers could choose to conduct either a full-size evaluation on exhibitors’ positive behavioral intention or a short-version.

In conclusion, using data from 594 exhibitors at 3 international trade shows, this study found that it is essential to consider all three key stakeholders when studying positive behavioral intention. Specifically, satisfaction with self-performance, satisfaction with organizers, and satisfaction with visitors all positively affected exhibitors’ positive behavioral intention, which extends literature on exhibitors’ positive behavioral intention in that the model proposed in this study comprehensively measures exhibitors’ performance at a trade show and explains a large portion of exhibitors’ positive behavioral intention. Trade show organizers could use the model proposed in this study to measure and improve their exhibitors’ positive behavioral intention.

References


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Chapter 5 Conclusion

The overarching purpose of this study was to propose and examine the Visitor-Exhibitor-Organizer (VEO) conceptual framework on trade show performance. In this chapter I will review the key findings, discuss the theoretical and managerial implications of these findings, address the limitations of the study, and point out directions for future research.

Summary of Key Findings

The VEO Conceptual Framework

Building on stakeholder theory, the empirically supported VEO framework extends previous research on trade show performance by incorporating all three key stakeholders in the trade show industry (i.e. visitors, exhibitors, and organizers). The results suggested that visitors’ and exhibitors’ overall satisfaction with a trade show consists of three components: satisfaction with self-performance and satisfaction with the other two key stakeholders, respectively. Specifically, a visitor’s satisfaction with trade show organizers and exhibitors, along with his/her satisfaction with self-performance, will positively affect his/her overall satisfaction with a trade show experience. Similarly, an exhibitor’s satisfaction with trade show organizers and visitors, along with his/her satisfaction with self-performance, will positively affect his/her overall satisfaction with a trade show experience. I also found that the VEO framework explained a good portion of
variance in visitors’ and exhibitors’ overall satisfaction and positive behavioral intention, which suggests that the three key stakeholders must be accounted for when evaluating trade show performance.

**Measurement Scale on Exhibitors’ Satisfaction**

Prior to this study no researchers have developed and examined specific items to measure exhibitors’ satisfaction with self-performance, visitors, and organizers simultaneously in the trade show industry. Thus, a measurement instrument on exhibitors’ satisfaction was proposed and validated through a pilot test, scale purification and validation. The final instrument consisted of 46-items that represented 12 sub-dimensions and 3 dimensions of exhibitors’ satisfaction. Reliability, unidimensionality, content validity, construct validity, discriminant validity, and predictive validity of the scale were tested and established using 594 responses from 3 trade shows in China. The end-product, a 46-item measurement scale on exhibitors’ satisfaction, can be used by organizers to (a) determine the factors that influence exhibitor’s trade show experience and (b) market and manage their trade show accordingly.

**Determinants of Exhibitors’ Positive Behavioral Intention**

Using the 46-item measurement scale on exhibitors’ satisfaction to predict positive behavioral intention, this study found that satisfaction with self-performance, satisfaction with organizers, and satisfaction with visitors are significantly and positively
related to exhibitors’ positive behavioral intention. Satisfaction with organizers turned out to be the dominant predictor with a standardized path coefficient of .442 (t-value = 6.161, \( p = .000 \)) while satisfaction with self-performance and satisfaction with visitors also positively affected exhibitors’ positive behavioral intention. In combination, these three dimensions explained approximately 65% of the variance in exhibitors’ positive behavioral intention.

To control for the effect of different trade shows, the 2013 China International Games & Amusement Fair was used as the baseline and two dummy variables (i.e., app14 and game14) were created to control for the effects of the other two trade shows (i.e., 2014 China Household Electrical Appliances Trade Fair or app14 and 2014 China International Games & Amusement Exhibition or game14). Three additional control variables were used in the study (i.e., job ranking, previous experience with the current trade show, and previous experience with trade shows in general). The results showed that previous experience with the current trade show significantly affected exhibitors’ positive behavioral intention, while the other four control variables (i.e., app 14, game 14, job ranking, previous experience with trade shows in general) were not significant. The non-significant path coefficients of app 14 and game 14 indicate that the effect of different trade shows are negligible in the proposed model and the three path coefficients under examination (i.e., H1, H2, and H3) are almost identical across the three trade shows. This finding suggests that the proposed model works across a wide range of trade shows.
Theoretical Implications

A major contribution of this study is that it introduces a new approach to measuring satisfaction in the trade show industry. Previous research on trade shows has focused on one specific stakeholder and ignored the interactions taking place with other stakeholders (e.g., Berne & García-Uceda, 2008; Bruhn & Hadwich, 2005; Godar & O’Connor, 2001; Jin, Weber, & Bauer, 2012; Reinhold, Reinhold, & Schmitz, 2010). This past approach was problematic because it failed to capture the significant impacts of all three key stakeholders. Stakeholder theory recognizes that successful performance of a business is dependent, in part, on the external environment, which is made up of key stakeholders (Freeman, 1984). One central tenet of stakeholder theory is that successful strategies need to correspond to the integration of all stakeholder interests rather than the maximization of one group’s position to the detriment of others (Freeman & McVea, 2001), and the performance of one stakeholder is not only dependent on but also impacts the performance of other key stakeholders. The results of this study supported stakeholder theory and indicated that all three dimensions (i.e., satisfaction with self-performance, organizers, and visitors) had a significant positive effect on exhibitors’ overall satisfaction and positive behavioral intention. Thus, in the future it would be myopic to focus on only one or two stakeholders when studying trade show performance because the performance of the three key stakeholders in the trade show industry is closely linked.

This study also extends previous research on trade show performance analysis. Hansen (2004) pointed out that theoretical research on trade show performance has been
quite limited or nonexistent, as most studies have focused on observational indicators such as actual sales at the show, number of leads, and attraction efficiency (e.g., Dekimpe et al., 1997; Gopalakrishna & Lilien, 1995; Kerin & Cron, 1987). Furthermore, as discussed in Chapter 1, most researchers claimed that their measures are indicators of performance but failed to support those claims with clear definitions of specific dimensions or to provide evidence of reliability and validity. This study filled the gap by proposing a conceptual framework after a comprehensive literature review and empirically examining the framework at multiple trade shows. The conceptual framework of trade show performance as well as the reliable and valid scales developed in this study demonstrated a strong connection between the theoretical and observational levels.

This study also focused on trade show exhibitors and developed and tested the specific items that contribute to their overall satisfaction and positive behavioral intention. Based on Hansen’s (2004) five-dimension framework, Brady and Cronin’s (2001) hierarchical service quality model, and a measurement scale I developed on satisfaction with visitors, this study started with 51 items representing 3 dimensions that theoretically contribute to exhibitors’ overall satisfaction. After a pilot test, a main test, scale purification, and scale validation, a reliable and valid instrument was established with 17 items relating to satisfaction with organizers, 17 items representing satisfaction with self-performance, and 12 items for satisfaction with visitors. The resulting instrument is superior to existing instruments in that it comprehensively measures exhibitors’ performance at a trade show and explains a large portion of exhibitors’ overall satisfaction and positive behavioral intention. Specifically, the three dimensions explained approximately 65% of the variance in exhibitors’ positive behavioral intention,
which is higher than the percentage of variance explained in previous studies on this subject (e.g., Kang & Schrier, 2011). Furthermore, the instrument can provide specific managerial implications because of the detailed items within the instrument.

Managerial Implications

The successful application of stakeholder theory in the trade show industry calls for organizers to take a comprehensive approach when evaluating their performance as well as the performance of their customers (i.e., exhibitors and visitors). Knowing this, trade show organizers should use the exhibitor satisfaction scale created in this study when evaluating their trade shows.

Satisfaction with self-performance, satisfaction with organizers, and satisfaction with visitors contributed significantly to exhibitors’ positive behavioral intention, and are not beyond organizers’ control. Several factors might cause one exhibitor to be satisfied with the trade show organizer and the other not, such as motivation for attendance and inconsistency in service delivery. In order to address these factors, trade show organizers could start by acknowledging the three sub-dimensions of service quality (i.e., interaction quality, environment quality, and outcome quality). Then, to improve upon the first sub-dimension of service quality—exhibitors’ perception of interaction quality—they could consistently reach out to exhibitors and address any problems that might occur in a timely manner. Second, organizers could provide the appropriate ambience that exhibitors are looking for in an effort to improve the second sub-dimension of service quality—environment quality. And, third, organizers could enhance outcome quality (i.e., the third
sub-dimension of service quality) by facilitating follow-up activities that connect exhibitors with visitors after the trade show and sending out marketing information about the exhibitors to visitors on a regular basis. As for exhibitors’ self-performance, organizers need to identify their major objectives and allocate their limited resources accordingly. There are five major objectives of exhibitors for attending trade shows: sales, information gathering, relationship building, image building, and motivation (Hansen, 2004). Organizers need to know about the objectives of their exhibitors and make sure those objectives get fulfilled during the trade show. Another aspect that organizers could work on to improve exhibitors’ overall satisfaction is to enhance the quality of visitors (Jin & Weber, 2013). The results of this study indicated that visitors’ job ranking, job function, purchase authority, and community quality all positively affected exhibitors’ overall satisfaction and positive behavioral intention. Thus, organizers should make every effort to attract a large number of high quality visitors with decision making and purchasing power. They also should make sure that exhibitors have enough opportunities to communicate with visitors prior to, during and after the trade show.

Trade show organizers have the flexibility to customize the measurement instrument tested in this study to fit their particular trade show. Since trade show exhibitors are mostly executives with limited time to spare, organizers could ask their exhibitors’ satisfaction level with the 12 sub-dimensions (i.e., sales, information gathering, relationship building, image building, motivation, interaction, environment, outcome, job level, job function, purchase authority, and communication) rather than the full model with 46 items. If a particular sub-dimension turned out to be problematic, the
organizers could follow up with exhibitors with the specific items within that sub-dimension.

**Limitations and Direction for Future Research**

The three key stakeholders in the trade show industry (i.e., visitors, exhibitors, and organizers) were included in this study’s measure of trade show performance. However, there are other stakeholders that might influence exhibitors’ satisfaction level and positive behavioral intention. For example, an exhibitor’s perception of other exhibitors might influence his or her perception of the trade show experience. One objective for exhibitors to attend trade shows is to demonstrate their leading role in the industry by exhibiting along with other high profile companies. Furthermore, an overall high quality pool of exhibitors would attract more high quality visitors, which in turn would improve exhibitors’ overall satisfaction. Thus, perception of fellow exhibitors could be a potential predictor of exhibitors’ overall satisfaction and positive behavioral intention.

Data on exhibitors’ “perception of their fellow exhibitors” were collected by asking them to respond to the following five statements: 1) “the other exhibitors are well-respected companies in the industry,” 2) “the other exhibitors are leading companies in the industry,” 3) “the other exhibitors attract more visitors to the trade show,” 4) “most of our competitors are exhibiting at the trade show,” and 5) “we learned something from our fellow exhibitors.” This subscale turned out to be reliable with a Cronbach’s alpha of .904. However, when added into the structural equation model with the other three
dimensions, the goodness-of-fit statistics of the model went from satisfactory to unacceptable and the standardized path coefficients from “perception of fellow exhibitors” to “overall satisfaction” was not significant. It is possible that the strong effects of the other three dimensions suppressed the effect of “perception of fellow exhibitors” (Hair, Black, Babin, & Anderson, 2009). A similar phenomenon could be seen in a study conducted by Jin and Weber (2013) who found that the relationship between destination attractiveness and exhibition brand preference was suppressed by the strong effect of relationship quality. Another possibility is that exhibitors’ perception of fellow exhibitors might not contribute to exhibitors’ positive behavioral intention at all. Since there has been no previous research on interactions between exhibitors, a qualitative study would be really helpful to identify the key factors that constitute exhibitors’ perception of fellow exhibitors. For example, researchers could conduct semi-structured interviews with trade show exhibitors by asking them to rate a list of statements on this dimension and leave open-end comments on the validity of these statements. Then a series of scale development procedures could be conducted to establish the reliability and validity of the measurement instrument. Once the instrument is established, researchers could apply the instrument at multiple trade shows and study the effect of fellow exhibitors on exhibitors’ overall satisfaction and positive behavioral intention.

Second, only positive behavioral intention rather than a combination of positive behavioral intention and actual behavior were measured. Previous research has shown that the strength of correlation between positive behavioral intention to actual behavior ranges between .41 and .53 (O’Keefe, 2002). Hence, there may be other factors that could
potentially influence actual behavior and “intent” should be cautiously used in future planning. The temporal stability of intention (Ajzen & Fishbein, 1980) and the degree to which the behavior was planned (Sheeran, Orbell, & Trafimow, 1999) are known to influence the conversion rate from intention to behavior. In the case of the trade show industry, external factors such as budget cuts, time conflict, new management, and changes in strategy might influence exhibitors’ decision to return during the one-year or six-month gap between trade shows. Hence, the discrepancy between positive behavioral intention and actual behavior and the factors that contribute to the discrepancy are worth investigating. Future studies should adopt a longitudinal design and study the factors that impact exhibitors’ positive behavioral intention as well as actual behavior. Since email follow-up surveys generally receive low response rate (Baruch, 1999), researchers could utilize the face-to-face post-show evaluation organizers conduct after each trade show to collect data on exhibitors’ satisfaction and positive behavioral intention. Using the data of previous trade show as the baseline, researchers could use time series analysis techniques to tell whether or not exhibitors are actually coming back and the dimensions of satisfaction that contribute most to exhibitors’ actual behavior.

Third, there is a discrepancy in the research findings. In Chapter 2, self-performance was the strongest predictor of exhibitors’ and visitors’ overall satisfaction and positive behavioral intention. However, in Chapters 3 and 4, satisfaction with organizers (i.e., service quality) was the strongest predictor of exhibitors’ satisfaction and positive behavioral intention. Several factors might be contributing to this discrepancy.

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2 I attempted to collect data on exhibitors’ actual behavior three months after the trade show, but the endeavor was abandoned because of a very low response rate.
First, in Chapter 2 data from a semiconductor trade show held in the United States were used. In Chapters 3 and 4 data from four trade shows in China were used. The difference in culture and type of trade show might have impacted the relative strength of the three dimensions of the VEO framework. Second, the use of different survey instruments may explain the discrepancy in results. In Chapter 2, single-item constructs were employed in the visitor model and two-item or three-item constructs were used in the exhibitor model. Following a pilot test and scale purification and validation, a comprehensive measurement scale with 46-items was adopted for the data collected and reported on in Chapters 3 and 4. This variation in measurement instruments might contribute to the difference in standardized path coefficients.

Fourth, the two control variables for the different trade shows were not-significant in the proposed model on exhibitors’ positive behavioral intention, which suggests that the effects of different trade shows are negligible and the three-dimension measurement instrument should work across a wide range of trade shows. To fully establish the invariance of the measurement instrument across trade shows in different industries, multi-group analysis was conducted. Constraints were placed on a sequence of models to examine equal structural weights across the three trade shows. Model 1 corresponds to the baseline unconstrained model; Model 2 corresponds to equal factor loadings model; Model 3 corresponds to equal factor loadings and equal measurement intercepts model; and Model 4 corresponds to equal factor loadings, equal measurement intercepts, and equal structural weights. A factor loading invariance would indicate that the loadings for each factor are not significantly different from each other and a measurement invariance would indicate that the model fit indices are not significant when factor loadings are
constrained to be equal across all subgroups. Similarly, structural weights invariance would indicate that the standardized path coefficients are not significantly different from each other (Byrne, 2004). Stepwise comparisons on chi-square differences in relation to changes in degrees of the freedom of the unconstrained model could indicate where the invariance is achieved.

Since structural equation multi-group analysis has been found to be highly sensitive to sample size (Meade, Johnson, & Braddy, 2008), change in Tucker-Lewis Index (TLI) rather than chi square test was used to examine the invariance (Casper, Bocarro, Kanters, & Floyd, 2011). A TLI change less than or equal to 0.01 suggests that invariance of an instrument should not be rejected (Byrne, 2008). Thus, if the $p$ value of the chi square test is lower than .05 but the TLI change is less than .01, there is evidence for the invariance of the parameters between groups (Casper et al., 2011).

Table 1 lists the multi-group analysis results. All TLI changes are within the .01 cutoff value, which suggests that invariance was achieved at all three levels (i.e., measurement weights, measurement intercepts, and structural weights). To further establish the invariance of the instrument, future studies should include more trade shows in the sample. Previous research has indicated that type and location of events have a significant effect on participants’ experience (Oppermann & Chon, 1997; Tkaczynski & Rundle-Thiele, 2011). Thus, data should be collected from exhibitors attending trade shows for other industries as well as trade shows in other geographical locations.
Table 1. Multi-group Test Results

<table>
<thead>
<tr>
<th>Model description</th>
<th>$\chi^2$</th>
<th>Df</th>
<th>$\Delta \chi^2$</th>
<th>$\Delta df$</th>
<th>p</th>
<th>$\Delta$ TLI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unconstrained</td>
<td>994.803</td>
<td>249</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Measurement weights</td>
<td>1035.575</td>
<td>267</td>
<td>40.772</td>
<td>18</td>
<td>.002</td>
<td>-.005</td>
</tr>
<tr>
<td>Measurement intercepts</td>
<td>1160.321</td>
<td>293</td>
<td>165.518</td>
<td>44</td>
<td>.000</td>
<td>-.002</td>
</tr>
<tr>
<td>Structural weights</td>
<td>1189.519</td>
<td>303</td>
<td>194.716</td>
<td>54</td>
<td>.000</td>
<td>-.003</td>
</tr>
</tbody>
</table>

Fifth, this study only addressed the linear relationships between the three dimensions and the outcome variables (i.e., overall satisfaction and positive behavioral intention). It is possible that the effects of the three dimensions on the outcome variables are non-linear (i.e., quadratic, cubic, or with thresholds). Future studies could model outcome variables in terms of natural logarithms, because taking the natural log would produce less heteroscedasticity and a superior model fit compared to the analogues level-form specification (Thrane & Farstad, 2011). Another approach to gauge exhibitors’ performance is to use Net Promoter Score (Reichheld, 2003). Net Promoter Score is based on the likelihood that a customer would recommend a product/service to a friend or colleague. The scoring for this answer is based on an 11-point Likert scale (0 being least likely and 10 being more likely), with a score of 9 or 10 indicating loyal customers and a score of 0 to 6 indicating unsatisfied customers. Scores of 7 and 8 are ignored. The Net Promoter Score is calculated by subtracting the percentage of customers who are unsatisfied from the percentage of customers who are loyal customers. A positive score would indicate good performance; a score higher than 50 is deemed excellent. This approach has been used extensively in the industry and has received positive results.
Adopting the Net Promoter Score tool would allow researchers to study the effects of the three dimensions on exhibitors’ Net Promoter Score.

Furthermore, researchers need to be aware of the halo effect and other method biases (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). For example, exhibitors’ perception of visitors’ purchase power could be quite subjective. Respondents’ characteristics (e.g., job function, job ranking) may influence their responses resulting in an inaccurate reflection of the situation. Future research should explore more on this subject and examine the potential discrepancy between respondents’ perception of purchase power and objective purchase power (e.g., number of contracts signed and leads obtained). Similarly, behavioral intention of a staff member might not be the same as that of a Chief Executive Officer of the same company. It would be beneficial to collect information from several people within the same company in order to more comprehensively measure behavioral intention.

In summary, the halo effect is a threat to measures of service quality because consumers often do not have sufficient information to judge a wide range of attributes or dimensions of service quality and thus rely on a few attributes to arrive at their final service quality perception. This effect may explain why high correlations have been observed between service quality dimensions in some studies (Cronin & Taylor, 1992).

Future studies could examine the direct effects of the three dimensions on positive behavioral intention when overall satisfaction serves as the mediator (Figure 1). If the direct paths from the three dimensions to positive behavioral intention turn out to be significant, it would further corroborate the argument that it is not enough to only measure overall satisfaction since the three dimensions have significant direct effects on
positive behavioral intention. A preliminary mediation analysis using the three trade shows in this study showed the direct effects of the three dimensions on positive behavioral intention were not significant. However, a larger sample size or replacing positive behavioral intention with actual behavioral might yield different results.

Figure 1. Mediation Model

Future studies could also focus on the application of the VEO framework, the exhibitor satisfaction scale, and trade show evaluation in general and the effects of the application on trade show organizers’ financial performance. Exhibitors’ perception of trade shows in general might differ from their perceptions of a recent trade show they attended. Future studies should explore exhibitors’ general perception of trade show
attributes and compare the dimensions created with the three dimensions established in study. Furthermore, conducting performance evaluation is generally considered to be beneficial to a firm’s future performance and is a very effective tool for motivating and monitoring company employees (Lee, Kwak, & Han, 1995). Trade show evaluation allows the organizers to obtain more information from the exhibitors and visitors to evaluate their own performance and guide their future improvement. It could be hypothesized that the trade show organizers who conduct evaluation have a better performance (e.g., return on investment (ROI) and total attendance) compared to the organizers who do not. Furthermore, taking the VEO framework into consideration, it could be hypothesized that trade show organizers who conduct systematic trade show evaluation (e.g., adopting the VEO framework) are perceived to perform better than organizers who do not conduct systematic trade show evaluation (Figure 2).

Figure 2. Conducting Evaluation and Firm Performance
References


Appendix: Final Survey Items

Satisfaction with self-performance (Please rate the following 17 items on your self-performance, 1 = extremely poor, 10 = extremely excellent)

S1. Test new product concepts.
S2. Develop new product/market segments.
S3. Introduce and evaluate reactions to new products.
S4. Actual sales at the trade show to customers.
IG1. Collect information about competitors’ prices, products, and strategies.
IG2: Collect information in general.
IG3: Search for information about visitors.
RB1. Strengthen relationships with existing customers.
RB2: Build relationships with new customers.
RB3. Maintain contact with existing customers.
RB4. Develop contact with new customers.
IB1. Demonstrate to customers that we are just as good as our competitors.
IB2. Enhance customers’ image of our company.
IB3. Convince customers that we are a strong and solid company.
IB4. Gain advantage over competitors who are not exhibiting.
M1. Train and develop our sales team.
M2. Strengthen our sales people’s motivation (e.g., traveling abroad, break in daily routines, meeting customers at the show and outside the show area).
Satisfaction with organizers (Please indicate your level of agreement with the following 17 statements on organizers, 1 = strongly disagree, 10 = strongly agree)

A1. You can count on the trade show organizers being friendly.

A2. The attitude of the trade show organizers demonstrates their willingness to help me.

A3. The attitude of the trade show organizers shows me that they understand my needs.

B1. I can count on the trade show organizers to address my needs.

B2. The trade show organizers respond quickly to my needs.

B3. The trade show organizers understand my needs.

E1. The trade show organizers know their jobs.

E2. The trade show organizers are able to answer my questions quickly.

E3. The organizers understand that I rely on their knowledge to meet my needs.

AC1. The trade show’s ambience is what I’m looking for in a trade show.

AC2. The trade show organizers understand that the atmosphere at the show is important.

AC3. The security provided by the organizers is excellent.

D1. This service provider’s layout never fails to impress me.

SF1. The trade shows’ other exhibitors consistently leave me with a good impression.

V1. When I leave the trade show, I feel that I had a good experience.

V2. The trade show organizers try to give me a good experience.

V3. The trade show organizers know the type of experience exhibitors want.
Satisfaction with visitors (Please rate the following 12 items on visitors, 1 = extremely poor, 10 = extremely excellent)

JR1. Overall job ranking of customers.
JR2. Job ranking of existing customers.
JR3. Job ranking of potential customers.
JF1. Overall job function of customers.
JF2. The fit of job function of customers to your specific needs.
JF4. Job function of potential customers.
PA1. Overall purchasing authority of customers.
PA2. Purchasing authority of existing customers.
PA3. Purchasing authority of potential customers.
I1. Amount of interaction with customers.
I2. Quality of interaction with customers.

Overall satisfaction (1 = extremely unsatisfied, 10 = extremely satisfied)

OS. Please rate your overall satisfaction with this trade show.

Positive behavioral intention (2 items, 1= least likely, 10 = most likely)

WR. Please rate your likelihood of exhibiting at this trade show next year.
WM. Please rate your likelihood of recommending this trade show to your colleagues and other companies.
Control Variables (5 items, three Likert scale and two dummy variables)

RJR. Respondents’ job ranking.

PRE. Please indicate your previous experience with this trade show.

PREGEN. Please indicate your previous experience with trade shows.

APP14. Dummy variable for 2014 China Household Electrical Appliances Trade Fair

GAME14. Dummy variable for 2014 China International Games & Amusement Exhibition
VITA
Yeqiang Lin

EDUCATION
The Pennsylvania State University
Ph.D. in Recreation, Park, and Tourism Management, August 2014

California State University, Chico
M.A. in Recreation, Hospitality and Parks Management, May 2010

Beijing International Studies University
B.A. in Tourism Management, June 2008

PUBLICATIONS


SELECTED PROFESSIONAL PRESENTATIONS


TEACHING EXPERIENCE
Program Evaluation and Research in Recreation Services, Penn State University