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An exploratory study of attendee activities at a business trade show

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Abstract

Purpose – Although trade shows are a significant part of the B2B communications mix, academic research in the area is sparse. To successfully manage this medium, a careful understanding of attendee behavior on the trade show floor is necessary. Drawing from the rich literature on shopper typologies in retailing (which parallels the trade show atmosphere), this paper sets out to develop a set of attendee metrics that show organizers can track regularly.

Design/methodology/approach – Through latent class clustering on unique attendee-level data from a popular computer trade show, five segments of attendee activity are uncovered that differ along dimensions such as the attendee's involvement and focus and the exhibitor's booth size, booth accessibility, and product display.

Findings – Significant heterogeneity is found in attendee activities on the show floor. There are interesting similarities and differences between the retail and B2B shopper. Implications for trade show organizers and exhibitors are discussed and directions for future research suggested.

Originality/value – Since the data employed are becoming more readily available, the hope is that managers and academic researchers might find the suggested metrics and segmentation approach useful in advancing a deeper understanding of the trade show attendee.

Keywords Trade fairs, Shopping, Cluster analysis, Classification

Paper type Research paper

Trade show goals

Industrial trade shows are a multi-billion dollar industry. The typical exhibition industry metrics such as net square feet and the number of exhibitors/attendees have displayed steady growth during the period 2000 to 2007 (Center for Exhibition Industry Research, 2008). Trade show revenues rose at an average growth rate of about 5 percent over 2005 and 2006 (Tully, 2007). While the challenges in assessing economic returns from trade show investments have been noted (e.g., Barker, 2005; Gopalakrishna *et al.*, 1995), the eventual "success" of a show resides largely in its ability to meet the objectives of three primary constituents:

- 1 the attendees;
- 2 the exhibitors; and
- 3 the show organizers.

Across a range of industries, nearly 40 percent of first-time exhibitors do not return to the same show the following year and the typical exhibit reaches less than 60 percent of its prospects. Several trade shows debut every year, but the number that were cancelled or postponed rose from 98 in

1995 to 221 in 2003 (Center for Exhibition Industry Research, 2008). Industry experts agree that a key reason for show failure is the inability to provide a setting that enables attendees to fulfill their objectives. They suggest that objectives vary widely across attendees (Tesar, 1994), and therefore, understanding how they engage in the show experience is a critical element of success.

The academic literature has noted that attendees have a combination of buying and non-buying objectives while attending a trade show (Hansen, 1996; Smith and Smith, 1999). For example, the buying dimension may include the placement of orders and requests for product information from current or new suppliers, while the non-buying dimension may involve professional networking, browsing to see what is new, and gathering competitive intelligence (Smith and Smith, 1999). On the other hand, attendee activities on the show floor might generally be in line with their objectives but may also be influenced, in part, by exhibitor objectives. These include lead generation and handling customer complaints, which are sales-related, as well as activities geared toward building product awareness and promoting corporate image which are non-sales related (Kerin and Cron,

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1987). Exhibitors often employ eye-catching signage, lively demonstrations, promotional give-away items, entertainers, and other tactics to compete with rivals in attracting visitors to their booth. These can have an impact on attendee behaviors at the show. Specifically, attendees may end up engaging in “agenda” and “non-agenda” activities to varying degrees due to exhibitor actions. Prior research finds some evidence for agenda and non-agenda based motives of trade show attendees. For instance, Godar and O’Connor (2001) posit the notion that attendees may attend shows to confirm decisions, become advocates for products or to simply have “a day out of the office”. However, prior research does not shed light on how attendee activities (e.g. agenda or non-agenda based) are linked to their professional objectives (e.g. make a final buying decision, recommend, etc). Godar and O’Connor (2001) note that the practitioner can use resources more effectively while improving marketing performance, by planning an exhibit that considers the motives for buyer attendance.

We posit that a segmentation strategy based on objectives as well as activities will provide a richer understanding of the diverse needs and behaviors of trade show attendees. Toward this end, we examine data that details attendee objectives and activities at SIGGRAPH, a major computer trade show. A unique feature of our data is that booth visits made by each attendee (indicating serious interest) were tracked in the order in which they occurred which permits us to examine individual visit sequences. We combine this information with the attendee’s organization profile, pre-show product interest, the mix of products on display at various booths, and the floor plan detailing other logistical aspects of the booth. Using a latent class clustering approach, we then ascertain:

- whether visitors differ in terms of how they “shop” on the floor of the trade show; and
- whether those differences have any meaningful implications for exhibitors and show management.

This paper describes a typology based on our analysis that segments trade show attendees based on their objectives and actual, not self-reported, behavior as they search for products at a show. The typology offers a richer perspective on trade show attendees and has implications for exhibitors and show management. If attendees can be segmented based on their objectives and activities, then firms may be able to leverage their trade show strategy more effectively by targeting preferred attendee segments and show management might have a better sense of how to go about fulfilling attendee and exhibitor expectations. In the following sections we briefly review the literature, describe the data and findings, and conclude with a discussion of our findings and suggestions for future research.

Shopper typologies

Retail scholars have offered numerous consumer shopping typologies (see, for example, Darden and Reynolds, 1971). Generally, typologies are created by statistical clustering which isolates common aspects of shopper intentions and activities in specific settings. For example, researchers have reviewed the work on shopper typologies and generalized consumer shopping styles in traditional versus factory outlet malls (Reynolds *et al.*, 2002). The emergent themes in typologies are typically based along dimensions such as time spent in the setting, planned and unplanned purchases, involvement, and preferences for well-known brands that

categorize shoppers as “high” or “low” along these various dimensions (Bellenger and Robertson, 1977; Bloch *et al.*, 1994; LaBay and Comm, 1991; Roy, 1994). Specifically, one extreme (the recreational shopper/enthusiast) includes consumers who spend a lot of time in the setting (such as the mall) and make lots of purchases while the other extreme involves those who spend less time in the setting and make fewer purchases (e.g. “the minimalist” in Bloch *et al.*, 1994). The two extremes may be further sub-divided into categories based on preference for well-known brands (LaBay and Comm, 1991), shopping importance (Karande and Ganesh, 1998) and planned versus impulse purchases (Bloch *et al.*, 1994; Roy, 1994).

The various typologies that have been developed to segment consumer shopper types provide a useful platform, but industrial buyers differ from consumer buyers in at least three ways. First, the nature of the “shopper” is different in terms of who they buy for (organization versus individual), the extent of focus (utilitarian versus hedonic), and time constraints (high versus low) (Moriarty and Spekman, 1984). Therefore, industrial buyer-related variables must be included in the typology. Second, the typology should include some information related to the size and location of booths that attendees may prefer to visit. Note that, unlike in the retail mall setting, the booth size and location decision is more “flexible” (i.e. an exhibitor may choose to have a bigger booth at a different location on the floor as compared to the previous year). These variables have an influence on the attraction capability of an exhibitor (Gopalakrishna and Lilien, 1995). Including variables such as booth size and accessibility in a typology can allow exhibitors to align the characteristics of their booth with the visitor segment(s) they would like to attract. Finally, unlike shopping malls, visitors at trade shows generally do not make purchases. Thus, the behavioral outcome of interest is whether the attendee is a viable lead for future follow-up.

For our typology, we use a mix of variables that pertain to both intention and behavior of the attendees. We begin with a full description of our data and how we operationalized each variable. We then detail how we incorporate these variables in a latent class clustering procedure that produced distinctive clusters of trade show attendees.

Data description

Our data originate from SIGGRAPH, a major computer trade show held over a three-day period where over 17,000 buyers were in attendance. Based on discussions with an industry expert and the show organizers, we classified the products exhibited at the show into six meaningful classes:

- 1 Business Application Software;
- 2 Computers & Peripherals;
- 3 Video & Image Equipment;
- 4 Video & Animation;
- 5 Graphic Design Software; and
- 6 Other Software.

Prior to the show, attendees completed a survey detailing their job title, role in the purchase decision, and interest in seeing products pertaining to each of the above six classes (marked off a check list). At the show, each attendee received an identification card to “swipe” at the booths. This procedure enables easy exchange of contact information at the booth and produces summarized leads for the exhibitors. Thus, the swipe, while documenting a specific booth visit, also indicates

an expression of further interest in the product by the visitor. Since the tracking data covers all swipes made at various booths by an attendee, our analysis reflects behavior that pertains to *serious intent*. After combining the intention and behavioral data, our analysis is based on a sample of 281 attendees for which we had complete records. We now describe the variables we use in our analysis.

Description of variables

Table I highlights the list of variables we used to develop our typology. This is similar to those used in previous retail shopper typologies. For variables relevant to the industrial buyer, we draw on prior literature on industrial buying and information search at trade shows.

Total number of booths visited

Previous literature (e.g. Bloch *et al.*, 1994) has highlighted the need to measure the number of visits a consumer makes at the mall, since it is an activity-based measure of involvement. While some consumers may go to the mall for utilitarian reasons and actually visit many stores and make purchases, there are several shoppers who seek recreational value alone (Bloch *et al.*, 1994; Ruiz *et al.*, 2004). Therefore, the number of visits is a good measure of utilitarian serious shopping activity. Previous research has shown that trade show visitors have multiple objectives but also differ in the intensity with which they engage in various activities (Kerin and Cron, 1987).

Operationalization. We operationalize the total number of visits made by an attendee through the swipe information discussed earlier. This measure is the closest approximation of trying to document visitor behavior on the floor with an *objective* measure (the number of swipes made by the attendee captures this behavior).

Agenda-relatedness

Prior literature on retail shopping has shown that the mall has transcended from being a purchasing site to a place that evokes pleasurable experiences (Bloch *et al.*, 1994). Part of the individual satisfaction derived from malls stems from the discovery of new items and impulse purchases – shoppers who arrive at the mall without a specific agenda are called “experience shoppers” (Ruiz *et al.*, 2004) and typically make unplanned purchases.

At a trade show, it is not clear whether industrial shoppers stick to their agenda or simply engage in experiential shopping. On the one hand, industrial purchase involves a serious consideration of alternative suppliers and the trade show is an important element of the decision making process for an organizational buyer due to its information value (Gopalakrishna and Lilien, 1995). Industry reports indicate

that 76 percent of all trade-show attendees come with a specific trip agenda (Forest Expo, 2006). However, some attendees may just want to browse to catch up on industry trends or go to the show to network with other professionals (Smith and Smith, 1999). Also, eye-catching signage and giveaways by an exhibitor may attract “tire kickers” – people with no buying intent who merely waste the booth salesperson’s time (Cox, 2005). Thus, agenda-relatedness measures the extent of focus by the attendee while on the show floor.

Operationalization. We define agenda-relatedness as the percentage of attendee visits (swipes) that link with pre-show product interest. To operationalize the variable, we first coded each of the 238 booths based on product classes displayed there. We then matched an attendee’s pre-show interest in the product classes with whatever was on display at each booth that the attendee visited. We dichotomously coded each booth visit – if there was a match for at least one product class, the visit was scored “agenda-related”; otherwise it was “non agenda-related” We then obtained the percentage of visits that were agenda-related for each attendee; for example, if an attendee visited ten booths and seven were agenda-related, then agenda relatedness = 0.70).

Sequence stability

On the trade show floor, attendees have multiple navigation options, such as covering the floor aisle by aisle versus identifying specific booths of interest and visiting them wherever they may be located on the floor. Every visitor follows a unique sequence of booth visits. While some visitors might first attend to buying objectives before exploring other booths, others may not follow any definitive rule. The visit sequence reveals stability in search behavior – it describes whether a visitor keeps a sustained agenda focus or switches frequently. This may, in part, be driven by the individual and firm-specific objectives (Biddle, 1979). Differences in stability could also potentially stem from the navigation path chosen on the floor.

Operationalization. We derived a measure of stability that was based on each attendee’s unique visit pattern. After classifying each visit as agenda-related (1) or not (0) as noted previously, we focus on the order in which the visits occur for each attendee. Using the sequence information, we calculate a normalized pattern stability metric for each attendee ranging from 0 (low stability) to 1 (high stability). A detailed discussion of our stability index appears in the Appendix.

Type of information sought

Trade show attendees arrive at the show seeking a variety of information. Past research (Bello, 1992) has viewed

Table I List of variables and literature sources

Variable	Motivation from mall shopping literature	Motivation from trade show literature
Total number of booths visited	Bloch <i>et al.</i> (1994), Roy (1994), Ruiz <i>et al.</i> (2004), Reynolds <i>et al.</i> (2002)	Kerin and Cron (1987)
Agenda-relatedness	Bloch <i>et al.</i> (1994), Ruiz <i>et al.</i> (2004)	Smith and Smith (1999)
Type of information sought	Bloch <i>et al.</i> (1994)	Kerin and Cron (1987), Bello (1992)
Attendee’s role in the buying process		Kerin and Cron (1987), Bello (1992)
Product variety preference	Lesser and Hughes (1986), Ruiz <i>et al.</i> (2004)	Gopalakrishna and Lilien (1995)
Booth size preference	Dogu and Erkip (2000), Reynolds <i>et al.</i> (2002)	Gopalakrishna and Lilien (1995)
Booth accessibility preference	Dogu and Erkip (2000)	Isler (2007)

information-seeking along two dimensions. The first involves product information such as features, price, performance and quality, often known as technical information (Bello, 1992; Cardozo, 1983) that is focused on product attributes. The second is transactional information. This usually involves learning about competitor offerings, prices, new supply sources and developing or strengthening existing supplier relationships. Depending on the stage in the buying process and the designation of the attendee in the organization, we might expect some heterogeneity in the type of information sought by attendees. Therefore, based on prior literature, we include this variable in our segmentation approach.

Operationalization. Past research (Bello, 1992) has suggested that information needs are directly related to the organizational role. We measured the attendee's inclination to seek transactional versus technical information based on the role they played within their organization – manager versus technical (coded dichotomously for the segmentation analysis).

Attendee's purchasing role in the buying process

Prior literature has highlighted that the trade show attendee's purchasing role in an organization affects involvement (Bello, 1992; Grashof, 1979). Specifically, attendees with greater purchasing roles in the organization are expected to be more task-focused. The trade show offers a great opportunity to garner information on new trends and alternative suppliers in addition to the chance to meet suppliers face to face. Greater purchasing roles can also lead to more involvement as a risk-mitigating information gathering strategy (Moriarty and Spekman, 1984). Trade shows attract owners/managers from small firms who typically have a large say in the decision-making process (Bello, 1992). However, they also attract buyers who seek to enhance or maintain their company's visibility (Hansen, 1996). It is important to account for the heterogeneity in attendee behavior that may be driven by the individual's organizational role.

Operationalization. We measured the purchasing role of the attendee from the pre-show survey with a question that asked attendees to check one of three categories – “no role”, “recommended only” or “final say” in the purchasing process in their organization.

Product-variety preference

Exhibitors' objectives at trade shows are often in line with one or more stages of the typical buying process for an attendee. A focus on the early stages (e.g. exposure, awareness) would include exhibitor objectives such as attracting existing and prospective customers to the booth and exposing them to the firm's products (Shoham, 1992). To fulfill these objectives, exhibitors display a variety of products in the booth. Objectives aligned with the later stages of the buying process (e.g. trial and adoption) would involve getting the visitor to actually express interest in purchasing a product (e.g. sales lead). These objectives are also well served with product variety as booth salespeople can try to cross-sell multiple products to visitors. Our measure of product-variety preference captures the extent to which visitors sought out booths displaying a narrow set of products versus those offering a wider range.

Operationalization. We first obtained data on the product categories in which exhibitors displayed products at the show. Some carried products in only one category ($1/6 = 16$

percent category breadth) while other exhibitors had products in all categories ($6/6 = 100$ percent category breadth). We then performed a tercile split of the breadth of an exhibitor's product display (narrow, medium and wide). Finally, we used the attendee's visit information to obtain the percentage split of an attendee's visits among booths with narrow, medium and wide product display.

Booth accessibility preference

Previous research on mall shoppers has shown that visual accessibility significantly influences navigation (Dogu and Erkip, 2000). Practitioners find that long aisles, with no variation, tire out trade show attendees (Isler, 2007) and contribute to a feeling of congestion. Also, exhibitors tend to attract more attendees when their booths have multiple entrances rather than narrow single entrances that are perpendicular to the flow of traffic (Isler, 2007). However, the traffic density on the trade show floor is not uniform and the preference for corner booths (multiple entrances) may vary by location. Therefore, it is useful to capture attendee preference for booths with multiple access points.

Operationalization. We define booth accessibility by the number of open sides that the booth had on the show floor. Booths could have narrow access by being in the middle of an aisle (one side open) or they could stand alone (four sides open) in a separate section of the floor. Booths could also be corner booths with two or three sides open. The floor map detailed the number of sides that were open for every booth. We then coded each exhibitor on the show floor based on the number of sides open. Finally, we used the swipe information to compute the percentage split of an attendee's visit across booths with different levels of access.

Booth size preference

Previous research has noted the need to classify shoppers along their preference for well-known merchandise such as national brands (Reynolds *et al.*, 2002). For instance, outlet-mall shoppers are known for their patronage of brand name merchandise. In a similar vein, attendee preference for exhibitors with a large presence on the floor (typically based on booth size) is useful for organizers as they can be advertised in advance of the show to attract attendees. These booths, known as “anchor” booths (Kimball, 1991), are typically much larger in area than average booths and attract more visitors by using eye-catching signage, giveaways and lots of sales personnel (Gopalakrishna and Lilien, 1995). While some attendees may devote a large part of their time visiting the large booths, others may visit a greater proportion of smaller booths for specific product solutions.

Operationalization. We first obtained the area of each booth using the floor map. We then performed a tercile split to obtain exhibitors with small, medium and large booths. Finally, we used an attendee's visit information to obtain the percentage split of visits across small, medium and large booths.

Segmentation results

Our goal during the analysis was to ascertain if there were any common shopping patterns among attendees based on the variables described above. We used a latent class clustering technique, described below, to create segments based on common characteristics that most highly discriminated homogenous clusters of trade show attendees based on these variables.

Latent class clustering

The primary purpose of latent class clustering (LCC) is to classify objects into similar groups. LCC formulates a finite mixture of multivariate distributions, provides probabilistic classification into clusters, does not require rescaling of observed variables, and yields managerially meaningful segments (Wedel and Kamakura, 2000, pp. 78, 329). Parameter estimation is carried out by generating a maximum-likelihood function (Vermunt and Magidson, 2002).

Description of attendee segments

The results of the LCC are shown in Table II. We first estimated a model with a single cluster. We then repeated the process creating up to six clusters in all. Based on the AIC, BIC, classification error rate and R^2 (Vermunt and Magidson, 2002), the five-cluster LCC appeared appropriate since it had the best fit.

In the sections below we highlight significant features of each of the five attendee segments. A detailed description of each segment is provided in Tables II and III.

Segment 1: The basic shopper. The first group of attendees represents the “basic shopper”, comprising close to 40 percent of the attendees at the trade show. As the name suggests, they represent the typical visitor at the show. They make about seven “serious” visits while on the floor, out of which nearly three-fourths are related to their agenda. Also, 70 percent of their visits are made to stand-alone booths accessible on all four sides. About 45 percent of their visits are to large booths, thereby indicating their preference for spacious and popular booths. Finally, the basic shopper shows very little serious interest in booths open at only one end. The basic shopper appears to stick close to his or her goals and is attracted to large booths that maximize opportunities for achieving these goals while simultaneously seeking exposure to new products.

Segment 2: The enthusiast. The second group is the “enthusiast”, representing 17 percent of the sample. The most important characteristic is that the enthusiast makes an average of 24 visits while at the trade show, more than three times that of the basic shopper. Additionally, four-fifths of

their visits are agenda-related, showing high involvement as well as activity with the product categories. The enthusiast has a preference for large size booths and product variety that mirrors the preference of the basic shopper; however, the stability of the enthusiast is less than half of the basic shopper. The enthusiast, like the basic shopper, seeks to maximize opportunities to fulfill objectives by gravitating toward “where the action is”.

Segment 3: The niche shopper. The third group, labeled the “niche shopper”, represents nearly 17 percent of the sample. The niche shopper makes an average of 9.2 visits, which is greater than the basic shopper but lower than the enthusiast. However, the distinguishing feature of niche shoppers is that close to 40 percent of their serious visits are made to small-sized booths and nearly 19 percent of their visits are to booths that are open on one side (i.e. booths located in the middle of an aisle). These values are the highest across all segments on both aspects. Their agenda-relatedness is somewhat similar to the basic shopper (i.e. three-fourths of their visits are related to prior interests) but it is the size and limited accessibility of booths they visit that distinguish niche shoppers from other segments. The niche shopper is “on a mission” and is willing to seek out specialty vendors who do not have a big presence at the show.

Segment 4: The brand shopper. We refer to the fourth group as the “brand shopper”. Representing one-sixth of the sample, the brand shopper makes about ten serious visits on average, but shows a very high preference for large booths (60 percent) compared to the enthusiasts and niche shoppers (41 percent and 32 percent, respectively). This is the highest across all clusters. Interestingly, the agenda-relatedness of the brand shopper is the highest (nine out of ten booths visited are part of the agenda), showing that they not only seek out the popular booths but also ensure they visit booths they are interested in. Brand shoppers know what they want to accomplish and they go about doing so in a very efficient manner.

Segment 5: The apathetic shopper. The last group, titled the “apathetic shopper”, represents the smallest proportion of attendees (11 percent). The apathetic shopper has serious

Table II Results of latent class clustering

Describing variables	Segment 1 (basic shoppers)	Segment 2 (enthusiasts)	Segment 3 (niche shoppers)	Segment 4 (brand shoppers)	Segment 5 (apathetic shoppers)
Cluster size (percent)	38.95	17.09	16.68	16.3	10.98
Number of booths visited ^a	6.96	24.15	9.22	9.67	7.07
Agenda-relatedness ^a	0.73	0.78	0.73	0.86	0.68
Sequence stability ^a	0.55	0.27	0.46	0.38	0.45
<i>Transactional versus technical: type of information sought</i>					
Transactional information (percent)	20.86	26.77	27.7	24.11	19.26
Technical information (percent)	79.14	73.23	7.23	75.89	80.74
<i>Attendee's purchasing role</i>					
No role (percent)	28.5	35.43	28.13	33.33	48.86
Recommend only (percent)	62.71	64.53	63.8	47.55	41.64
Final say (percent)	8.79	0.05	8.06	19.12	9.5

Note: ^aThe variable is significantly different ($p = 0.05$) across all segments

Table III Percentage split of visits for each attendee in each category

	Segment 1 (basic shoppers)	Segment 2 (enthusiasts)	Segment 3 (niche shoppers)	Segment 4 (brand shoppers)	Segment 5 (apathetic shoppers)
Booth product variety^a					
Narrow	21.35	19.68	22.71	11.32	24.57
Medium	36.91	39.14	37.35	37.63	25.02
Wide	41.73	41.17	39.94	51.05	50.41
Booth accessibility (percentage of visits made)^a					
One-sided	0.00	4.59	18.22	4.14	7.30
Two-sided	29.42	31.38	29.38	18.77	42.54
Three-sided	0.00	4.27	0.00	12.04	17.41
Four-sided	70.58	59.76	52.40	65.05	32.75
Booth size (percentage of visits made)^a					
Small	19.17	24.68	39.43	13.29	35.80
Medium	35.20	34.00	28.55	25.57	23.812
Large	45.63	41.32	32.02	61.14	40.38

Note: ^aThe variable is significantly different ($p = 0.05$) across all segments

visits at two-thirds of the booths that he plans to visit before the show – the lowest across all clusters. Also, the apathetic shopper makes close to 20 percent of his visits to peninsula-type booths (open on three sides), which represents convenience compared to booths in the middle of the aisle, which may present more navigational difficulties. Also, this type of shopper has a large preference for booths with a wide selection (50 percent). Apathetic shoppers may represent “newcomers” or attendees who have difficulty navigating the trade show floor or are unfamiliar with the trade show environment.

Discussion of results

The typology of the industrial shopper has some striking similarities to that of the retail shopper. Past work has shown that consumer shoppers vary in terms of the amount of time spent at the mall (Roy, 1994), the propensity to make unplanned purchases (Bloch *et al.*, 1994) and brand preference (Reynolds *et al.*, 2002; Ruiz *et al.*, 2004). We find that industrial shoppers also vary on similar dimensions – the number of booth visits they make, their agenda-relatedness and their preference for large booths.

Next, the percentage of apathetic shoppers and the brand shoppers in our study are comparable to Reynolds *et al.* (2002). While our study finds the percentages of the apathetic shopper and brand shopper to be 11 percent and 16 percent, Reynolds *et al.* (2002) report 9 percent and 11 percent for the factory outlet shopper. However, the number of enthusiasts at a retail mall (30 percent) is larger than at a trade show (17 percent). These results are not surprising given the organizational responsibility attached to the role of industrial shoppers as opposed to consumer shoppers.

Another important feature among the industrial shoppers is the extent of agenda-relatedness; we find that all attendees in groups stick to their prior agenda plans by visiting booths that displayed products they had an interest in as expressed in the pre-show surveys. This is in stark contrast to retail/mall shoppers, who have been documented to make a large number of unplanned visits and purchases during shopping

trips (Kollat and Willett, 1967). Interestingly, we do not find significant differences in attendee roles and information sought among our segments. This finding suggests that activity metrics seem to better distinguish the search activities of attendees at a trade show than traditional categorizations based solely on organizational roles.

Finally, we also find that a majority of attendee visits are made to booths open at all four ends. Additionally, we find that although a majority of the shoppers like to go to booths with greater product breadth, booths that display fewer products also receive a substantial number of visitors. Therefore, it appears that aspects of booth design make a difference in an exhibitor’s ability to attract specific segments of trade show attendees.

Managerial implications

To understand attendee behavior, show organizers first need to be able to develop a set of activity metrics that can differentiate the attendees. Based on the retail mall shopping literature, we develop a set of metrics that organizers can use to better understand attendee behavior on the floor. Our segmentation strategy is unique in that it takes into consideration both objectives and activities of trade show attendees and identifies clear segments based on a combination of these factors.

An important implication for show organizers is that visitor segments differ in their attractiveness. The basic shopper and the enthusiast segments identified in our study account for nearly 65 percent of the total number of swipes made by attendees. Exhibitors may find the focus on swipes (serious visits) more valuable than just volume of booth traffic because swipes have the potential to be turned into quality leads after the show. Trade show leads are known to complement the selling efforts after the show by drastically reducing the cost of closure (Smith *et al.*, 2004). Therefore, show organizers should try to provide an environment congenial to the activities of the basic shopper and the enthusiast segments.

Another useful result for organizers is that attendees spend a large amount of time at booths that are spacious and

accessible on two sides or four sides. Practitioners believe that long aisles without a break could tire out attendees and that visitor flow into a booth must happen from multiple directions (Isler, 2007). Our findings reinforce this view. They also reinforce the retail view that anchor booths draw a lot of traffic (Kimball, 1991) – an industrial shopper is similar to a retail shopper in that regard. Hence organizers should try to attract several popular exhibitors to allow smaller exhibitors to potentially benefit from the gravitational effects.

Exhibitors might note that booths with a wider selection of products attract more visitors. While exhibitor objectives need not be sales-related (Kerin and Cron, 1987), a wider selection of products on display may increase the attraction capability of a booth. Compared to peninsula-style booths (three-sided), exhibitors could benefit more by larger size booths as they signal presence at the show (Gopalakrishna and Lilien, 1995). However, if an exhibitor is interested in attracting only the niche shopper who does not have a strong preference for larger or more open booths, the trade-off between low traffic (11 percent) versus high attraction efficiency is necessary. Industrial shoppers have organizational priorities that tend to make them more task-oriented than retail shoppers. However, our findings demonstrate that like retail shoppers, they can be effectively segmented based on behavioral data. In conjunction with descriptive data, the analysis provides a richer description about how distinct groups of industrial shoppers achieve their objectives at a trade show. Trade show exhibitors and organizers can utilize this knowledge to make decisions about product variety, booth size, and accessibility in a way that maximizes their ability to attract targeted segments.

Summary and future research

While the importance of trade shows in the B2B communications mix is well-known, show managers have only recently started to realize the critical role of addressing show effectiveness through understanding attendee behavior. A growing concern for managers is the ability to reach decision-makers that are relevant to their product or service (Galea, 2007).

An important first step in this effort is the access to individual level data that can inform organizers and exhibitors about the actual behavior of attendees on the floor of the show. This research takes the important first step of tracking actual visitor movement at a show at the micro level. We integrate existing literature on the retail mall shopper with the unique trade show characteristics to develop eight metrics that organizers can use to track and classify attendees. Our industrial shopper typology uncovers five visitor segments that differ along those metrics. The similarities and differences between these visitor segments harbor important implications for show organizers and exhibitors.

We believe our work is the first of its kind in the trade show literature and therefore must be viewed as exploratory. There are several directions that further research in this domain can follow. First, the typology should be replicated in different settings. Trade shows are either horizontal (broader array of products targeted to a general audience) or vertical (narrow set of products targeted to a specific audience) (Kerin and Cron, 1987). Our study examined a horizontal show, but analyzing the behavior at vertical shows would be very useful. Second, trade show differences have been shown to exist across continents (Dekimpe et al., 1997) and data from European shoppers could embellish this typology. Finally, we

did not include variables regarding hedonic or experiential aspects of consumption that were considered in previous retail typologies (e.g. Ruiz et al., 2004). While industrial shoppers may be less inclined to indulge in hedonic aspects of consumption, organizers could investigate variables that better distinguish the nature of the segments, in particular the factors that distinguish basic and enthusiast shoppers. As the data we use is becoming more readily available at trade shows, our hope is that organizers and researchers could use some of these metrics to enrich our understanding of trade show attendees and their diversity.

References

- Barker, J. (2005), "Show time", *Sales & Marketing Management*, Vol. 157, June, pp. 34-7.
- Bellenger, N.D. and Robertson, D.H. (1977), "Shopping center patronage motives", *Journal of Retailing*, Vol. 53 No. 2, pp. 29-38.
- Bello, D.C. (1992), "Industrial buyer behavior at trade shows: implications for selling effectiveness", *Journal of Business Research*, Vol. 25, pp. 59-80.
- Biddle, B.J. (1979), *Role Theory: Expectations, Identities and Behaviors*, Academic Press, New York, NY.
- Bloch, P.H., Ridgway, N.M. and Dawson, S.A. (1994), "The shopping mall as consumer habitat", *Journal of Retailing*, Vol. 70 No. 1, pp. 23-42.
- Cardozo, R.N. (1983), "Modeling organizational buying as a sequence of decisions", *Industrial Marketing Management*, Vol. 12, pp. 75-81.
- Center for Exhibition Industry Research (2008), *5th Annual Center for Exhibition Industry Research Index*, 2008 edition, Center for Exhibition Industry Research, Dallas, TX.
- Cox, S. (2005), "The measurable ROI of staff interaction", *Event ROI*, Vol. 1, Fall, p. 10.
- Darden, W.R. and Reynolds, F.D. (1971), "Shopping orientations and shopping usage roles", *Journal of Marketing Research*, Vol. 8 No. 2, pp. 505-8.
- Dekimpe, M.G., François, P., Gopalakrishna, S., Lilien, G.L. and van de Bulte, C. (1997), "Generalizing about trade show effectiveness: a cross-national comparison", *Journal of Marketing*, Vol. 5, pp. 5-64.
- Dogu, U. and Erkip, F. (2000), "Spatial factors affecting wayfinding and orientation: a case study in a shopping mall", *Environment and Behavior*, Vol. 73, pp. 1-754.
- Forest Expo (2006), "Show tips", available at: www.forestexpo.bc.ca (accessed September 20, 2007).
- Galea, C. (2007), "Show me the money: maximizing your trade show investment", available at: managesmarter.com (accessed September 20, 2007).
- Godar, S.H. and O'Connor, P. (2001), "Same time next year – buyer trade show motives", *Industrial Marketing Management*, Vol. 30, pp. 77-86.
- Gopalakrishna, S. and Lilien, G.L. (1995), "A three-stage model of industrial trade show performance", *Marketing Science*, Vol. 14 No. 1, pp. 22-42.
- Gopalakrishna, S., Lilien, G.L., Williams, J.D. and Sequeira, I.K. (1995), "Do trade shows pay off?", *Journal of Marketing*, Vol. 59, July, pp. 75-83.
- Grashof, J.F. (1979), "Sharing the purchasing decision", *Journal of Purchasing and Materials Management*, Vol. 11, pp. 26-32.
- Hansen, K. (1996), "The dual motives of participants at international trade shows", *International Marketing Review*, Vol. 13 No. 2, pp. 39-53.

Isler, T. (2007), “Floor show: creative layouts for exhibitions”, *Meetings and Conventions*, May.

Karande, K. and Ganesh, J. (1998), “Who shops at factory outlets and why? An exploratory study”, in Grewal, D. and Pechmann, C. (Eds), *American Marketing Association Winter Educators Conference, Marketing Theory and Applications*, Vol. 9, American Marketing Association, Chicago, IL, p. 22.

Kerin, R.A. and Cron, W.L. (1987), “Assessing trade show functions and performance: an exploratory study”, *Journal of Marketing*, Vol. 51 No. 3, pp. 87-94.

Kimball, W. (1991), “Recent trends in the shopping center market”, *The Appraisal Journal*, July, p. 382.

Kollat, D.T. and Willett, R.P. (1967), “Customer impulse purchasing behavior”, *Journal of Marketing Research*, Vol. 4, February, pp. 21-31.

LaBay, D.G. and Comm, C. (1991), “An exploratory investigation of the factory outlet shopper in the northeastern United States”, *Journal of Business Economic Studies*, Vol. 12, Fall/Winter, pp. 25-37.

Lesser, J.A. and Hughes, M.A. (1986), “Towards a typology of shoppers”, *Business Horizons*, November/December, pp. 56-62.

Moriarty, R.T. Jr and Spekman, R.E. (1984), “An empirical investigation of the information sources used during the industrial buying process”, *Journal of Marketing Research*, Vol. 21, May, pp. 137-47.

Reynolds, K.E., Ganesh, J. and Luckett, M. (2002), “Traditional malls vs factory outlets: comparing shopper typologies and implications for retail strategy”, *Journal of Business Research*, Vol. 55 No. 9, pp. 687-96.

Roy, A. (1994), “Correlates of mall visit frequency”, *Journal of Retailing*, Vol. 70 No. 2, pp. 139-61.

Ruiz, J.P., Chebat, J.C. and Hansen, P. (2004), “Another trip to the mall: a segmentation study of customers based on their activities”, *Les Cahiers du GERAD*, January, pp. 1-29.

Shoham, A. (1992), “Selecting and evaluating trade shows”, *Industrial Marketing Management*, Vol. 21 No. 2, pp. 335-41.

Smith, T.M. and Smith, P.M. (1999), “Distributor and end-user trade show attendance objectives: an opportunity for adaptive selling”, *Forest Products Journal*, Vol. 49 No. 1, pp. 23-9.

Smith, T., Gopalakrishna, S. and Smith, P. (2004), “The complementary effect of trade shows on personal selling”, *International Journal of Research in Marketing*, Vol. 21, pp. 61-76.

Tesar, J. (1994), “What do attendees really want?”, EXPO Web, November, available at: http://expoweb2.pubdyn.com/Attendance/1294_want.htm (accessed January 10, 2007).

Tully, B.E. (2007), *Center for Exhibition Industry Research Direct Newsletter*, April, Center for Exhibition Industry Research, Chicago, IL.

Vermunt, J.K. and Magidson, J. (2002), “Latent class cluster analysis”, in Hagenaars, J.A. and McCutcheon, A.L. (Eds), *Applied Latent Class Analysis*, Cambridge University Press, Cambridge.

Wedel, M. and Kamakura, W. (2000), *Market Segmentation: Conceptual and Methodological Foundations*, 2nd ed., Kluwer, Dordrecht.

Appendix. Operationalization of pattern stability

To operationalize pattern stability (denoted by s), consider an attendee-specific collection of 1's (agenda-related visits) and 0's (non-agenda visits) in a sequence such as the following:

$$A_i(7, 0.71) : 1 \ 0 \ 1 \ 1 \ 0 \ 1 \ 1,$$

where $A_i(n, a_r)$ denotes the total visits ($n = 7$) and agenda-related visits ($a_r = 5/7 = 0.71$) of attendee i . Let r denote the number of shifts in a sequence (transition from 1 to 0 or 0 to 1 at any point). In the above sequence, $r = 4$ (transitions occur after visits 1, 2, 4 and 5). The same n and a_r can produce different sequences. For example, consider A_x and A_y , both with $n = 10$ and $a_r = 0.5$:

$$A_x(10, 0.5) : 1 \ 1 \ 1 \ 1 \ 1 \ 0 \ 0 \ 0 \ 0 \ 0,$$

$$A_y(10, 0.5) : 1 \ 0 \ 1 \ 0 \ 1 \ 1 \ 0 \ 0 \ 1 \ 0.$$

While A_x 's agenda-related activities end early, A_y attends booths in a less structured fashion (possibly due to several reasons – attendee, exhibitor, floor-related). We define s as follows:

$$s = \left\{ \begin{array}{ll} \frac{(r_{\max} - r)}{(r_{\max} - r_{\min})} & \text{if } r_{\max} \neq r_{\min} \\ 1 & \text{if } r_{\max} = r_{\min} \text{ (when } m = n \text{ or } m = 0) \end{array} \right\}, \quad (A1)$$

where $s \in (0, 1)$. The maximum possible shifts in a sequence is r_{\max} , while h and m are the number of agenda-related and non-agenda visits ($h, m \in \{0, n\}$), it can be verified that:

$$r_{\max} = \left\{ \begin{array}{ll} 2m & \text{if } m < n/2 \\ 2h & \text{if } h < n/2 \\ 2(m - 1) = 2(h - 1) & \text{if } m = h = n/2 \end{array} \right. \quad (A2)$$

r_{\min} is the least number of deviations for any given sequence. Again, we can verify that:

$$r_{\min} = \left\{ \begin{array}{ll} 1 & \text{if } 0 < h < n \\ 0 & \text{if } h = 0, n \end{array} \right. \quad (A3)$$

Intuitively, the numerator in s denotes the actual deviation from the maximum shifts possible in a sequence. The denominator is the maximum possible instability. For example, consider:

$$A_x(7, 0.57) : 1 \ 0 \ 1 \ 1 \ 1 \ 0 \ 0.$$

This yields $r = 3$, $r_{\min} = 1$ and $r_{\max} = 6$. Therefore, $s = (6 - 3)/(6 - 1) = 0.6$, or 60 percent. As $s \rightarrow 1$, the sequence displays more stability. An example of $A_x(7, 0.57)$ with $s = 1$ would be:

$$A_x(7, 0.57), s = 1 : 1 \ 1 \ 1 \ 1 \ 0 \ 0 \ 0.$$

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