

# **Exhibitor satisfaction in business-to-business trade shows - Understanding performance patterns from Vavra's Importance Grid perspective**

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## **0. ABSTRACT**

Tradeshows are an essential instrument in the marketing of goods and services. Thus, the fair and tradeshow business has become a multi-billion dollar industry, in which trade fair organizers earn the biggest share of sales with exhibitors, paying fees for exhibition services. Thus, trade fair organizers strive for achieving a high level of exhibitor satisfaction. Despite its major importance for the fair and tradeshow industry, instruments to poll exhibitors satisfaction remain very basic. This research focuses on exhibitor satisfaction in a business-to-business context. The paper contributes to the field of trade show research by (1) exploring relevant issues of exhibitor satisfaction, (2) developing a measurement approach, (3) collecting data from a number of 362 exhibitors in business-to-business trade shows and 404 exhibitors in business-to-consumer fairs, and finally (4) comparing results upon the Vavra's importance grid.

**Key words:** public and industrial fairs and exhibitions, business-to-business service markets, explicit and implicit importance, requirements

## **1 Introduction**

Tradeshows are an essential instrument in the marketing of goods and services since they provide vendors a very focused platform for communication and exchange with customers of different kind (Kirchgeorg 2005). Thus, the fair and tradeshow business itself today has become an international multi-billion dollar industry (Hansen 2004), in which trade fair organizers earn the biggest share of sales with exhibitors, who are paying fees for exhibition services. As other services, tradeshows come along with intangible elements and a high degree of customer integration as co-producer of perceived service quality at the point of service (Parasuraman, Zeithaml, and Berry 1988). Thus, vendors strive for achieving a high level of customer satisfaction in order to foster desired customer attitude and behavior like e.g. intention to buy, positive word of mouth and purchase or repurchase behavior (Keaveney 1995). Measurement and evaluation of customer satisfaction, specifically exhibitors' and visitors' satisfaction therefore are key success factors for every trade fair and public fair organizer.

Although it is common practice in the fair and tradeshow industry to poll customers, exhibitors and visitors alike on several satisfaction issues, however the concept, operationalization and analysis of customer satisfaction surveys remain very basic.

So far, scientific literature provides little guidance for the specific context of tradeshow and exhibition industry, even if some studies address particular aspects of customer satisfaction in the trade show setting (Hansen 2004). Especially the important field of exhibitor satisfaction in the specific context of business-to-business interactions has been neglected so far (Gronroos 1998). Business-to-business services are distinctive from business-to-consumer services since the "end-product" delivered to the customer often depends on the input and interaction of several providers. Thus, for exhibitions the perceived service quality results from the individual contributions of different service providers, upon which the organizer and coordinator has only limited influence.

This research focuses on exhibitor satisfaction in a business-to-business context. The paper contributes to the field of trade show research in four different ways. (1) Upon recent literature reviews and field interviews, exhibitor satisfaction is being explored and relevant issues are identified. (2) A measurement approach capturing the relevant attributes of exhibitor satisfaction is developed. (3) Empirical data on a number of 362 exhibitors' satisfaction is collected and Vavra's importance grid is applied to calculate implicit importance of each satisfaction attribute. (4) Since most trade fair organizers are serving both business-to-business and business-to-consumer exhibitions, a comparative view will provide a deeper understanding of customers' needs and demands, and allows developing better services. Therefore, a second set of data on exhibitor's satisfaction in an business-to-consumer context is being collected and results are being compared to the business-to-business setting.

The remainder of this paper is structured as follows: First, existing literature is being discussed. Next, data collection and measurement is presented. This is followed by a discussion of the quantitative results gained by the analysis in Vavra's model. Especially similarities and dissimilarities in contrast to the business-to-consumer setting are highlighted. The paper closes by discussing the key findings, implications for theory development and tradeshow practice as well as suggestions for future research.

## **2 Literature review**

### **2.1 Trade shows and public fairs**

There is a variety of criteria available to categorize different types of exhibitions (Kirchgeorg 2005). For the purpose of this paper, exhibitions are differentiated by the type of customer, the vendor is interacting with. Thus, under the term trade show we subsume exhibitions or shows for industrial goods and services, independent of regional, national or international focus and addressing multi-industries or single industries which are sold to companies and institutional customers. Whereas the term public trade fair subsumes shows or exhibitions for consumer goods, irrespective of their breadth of goods and services displayed (broad and general or nar-

row, or focused on a single branch, like sports) that are addressed to private customers.

## 2.2 Vavra's importance grid

Vavra's model is a common framework to determine the importance of different service attributes for customer satisfaction (cf. Fuchs & Weiermair, 2003; Matzler et al., 2001; Matzler et al., 2002). It identifies basic, performance and excitement factors comparing explicit importance scores for specific services with corresponding implicit importance measures (Fuchs & Weiermair, 2003; Matzler et al., 2002):

- *Basic factors* score high on explicit but low on implicit importance. If not offered or not delivered at or above the expected service level, they cause dissatisfaction. On the other hand, overachievement does not advance customer satisfaction.
- *Performance factors* score either high or low on both importance dimensions. The relationship between service-item performance-score and the contribution to overall satisfaction is linear. Thus, the higher the delivered service level, the more satisfied the customers are and vice versa.
- *Satisfiers* score low on explicit but high on implicit importance. If offered, they considerably advance overall satisfaction but satisfiers do not necessarily avoid dissatisfaction. Customers do not expect satisfiers to be part of the offered service, which is why they strongly contribute to wow and to retain customers.

The model is based on three assumptions (Matzler et al., 2002): (1) Explicit and implicit importance of product or service attributes may be identified. (2) If asked about the importance of service attributes, customers rate basic factors most, performance factors second, and satisfiers least important. (3) Implicit importance is derived from correlating or regressing specific service items' stated performance scores with the overall satisfaction score.

As for assumptions one and two, it is important to distinguish implicit and explicit importance to correct for the overvaluation of basic factors and the undervaluation of satisfiers. Deng, Kuo and Chen (2008) note that the identification of implicit importance using coefficients for multiple regression analysis (cf. Matzler et al., 2002) are distorted by multicollinearity within independent variables. This deficit is circumvented in this work by using partial correlation coefficients as suggested by Hair et al. (1998).

## 3 Methods

### 3.1 Data collection and sample

The data was collected at eight different fair locations in Switzerland using a standardized paper-based questionnaire covering a total of 16 different shows. The questionnaires were sent out to all exhibitors that have participated with eight different business-to-business trade shows (total of 2306 exhibitors) and with eight different business-to-consumer trade fairs (total of 3776 exhibitors). The rate of returned useable questionnaires was  $N_1=362$  (15.7%) from business-to-business tradeshow and  $N_2=404$  (10.7%) from business-to-consumer fairs.

### 3.2 Measurement

A list of 28 service items was adapted from Shipley (1993) and from a number of 10 field interviews among marketing managers of industrial firms exhibiting at trade shows. The item list includes key factors for the decision to attend a fair. These factors cover four categories: event values (the fair as such), management values, service values, and location values. The items were rated in terms of service items' importance and performance on a five-point Likert-scale.

## 4 Analysis and results

The large size of samples allowed using the partial correlation model proposed by Deng et al. (2008) to derive implicit performance for the 28 identified service items, thus controlling for multicollinearity. However, due to limitations in the survey, overall customer satisfaction (OCS)

needed for the partial correlation model, had to be inferred for each respondent from the average explicit performance of all 28 service items.

Since the aggregated results of a total of eight different business-to-business and eight different business-to-consumer trade shows were compared, relative performance of service attributes as proposed in Deng et al. (2008) cannot be calculated; instead the mean performance attributes were used.

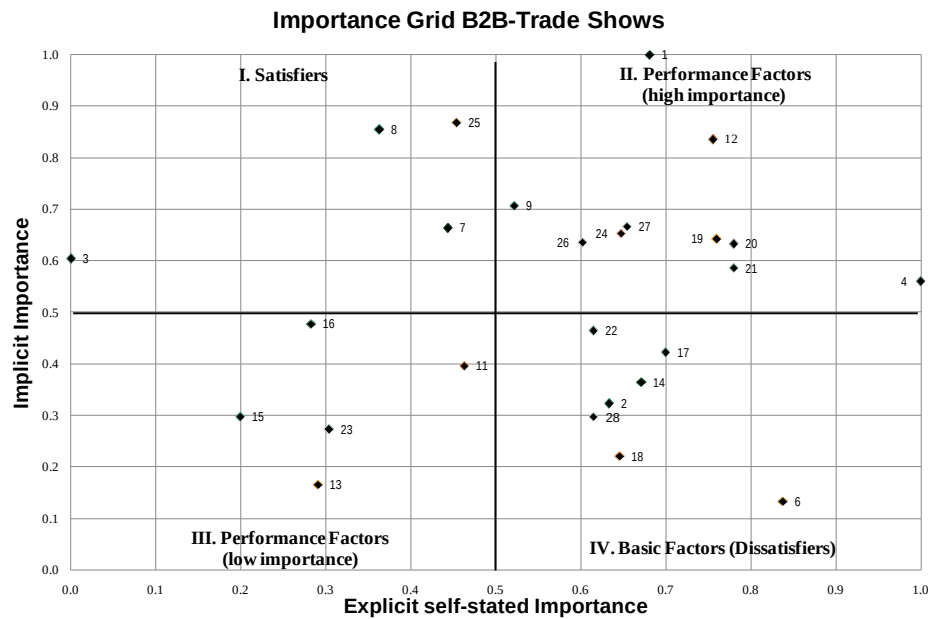
The use of the partial correlation model requires sample sizes  $> 200$  in order to obtain significant (at  $\alpha = 0.05$  level) coefficients for a high percentage of attributes, and therefore comparison of individual fairs was not possible.

The correlation of the service items' performance with the overall satisfaction yields the implicit importance values for each service item. These values together with explicit importance values will be subsequently needed to determine basic factors, performance factors and satisfiers. They are given for tradeshow only in Table 1 and displayed graphically in Vavra's grid in Figure 1. Analysis results on the importance of satisfaction attributes in business-to-business trade shows are discussed later in direct comparison to the business-to-consumer results.

**Table 1: Standardised implicit and explicit importance for business-to-business trade shows**

| Item                                                    | Service item                                                                | Std. implicit importance | Std. explicit importance |
|---------------------------------------------------------|-----------------------------------------------------------------------------|--------------------------|--------------------------|
| <b><i>I. Satisfiers</i></b>                             |                                                                             |                          |                          |
| 3                                                       | The proximity of the fair to your own location.                             | 0.00                     | 0.60                     |
| 7                                                       | The industry understanding the fair management and staff provides.          | 0.44                     | 0.66                     |
| 8                                                       | The quality of personal contacts with the fair management and staff.        | 0.36                     | 0.85                     |
| 25                                                      | The frequency of the event.                                                 | 0.45                     | 0.87                     |
| <b><i>II. Performance Factors (high importance)</i></b> |                                                                             |                          |                          |
| 4                                                       | Type of visitors.                                                           | 1.00                     | 0.56                     |
| 9                                                       | The networking and sales opportunities at the fair.                         | 0.52                     | 0.71                     |
| 1                                                       | The industry overview.                                                      | 0.68                     | 1.00                     |
| 19                                                      | The estimated number of visitors.                                           | 0.76                     | 0.64                     |
| 20                                                      | The estimated costs of exhibiting.                                          | 0.78                     | 0.63                     |
| 21                                                      | The estimated publicity.                                                    | 0.71                     | 0.59                     |
| 24                                                      | The facilities at venue.                                                    | 0.65                     | 0.65                     |
| 26                                                      | The duration of event.                                                      | 0.60                     | 0.64                     |
| 27                                                      | The date of event.                                                          | 0.65                     | 0.67                     |
| 12                                                      | The reliability of fair management and staff.                               | 0.76                     | 0.84                     |
| <b><i>III. Performance Factors (low importance)</i></b> |                                                                             |                          |                          |
| 11                                                      | The safety of the fair location.                                            | 0.46                     | 0.40                     |
| 13                                                      | The offer of any required services through the fair organizer.              | 0.29                     | 0.17                     |
| 15                                                      | The attractiveness of the location (gastronomy, culture, sight-seeing etc.) | 0.20                     | 0.30                     |
| 16                                                      | The adaptability of services tailored to specific needs.                    | 0.28                     | 0.48                     |
| 23                                                      | The estimated sales at venue.                                               | 0.30                     | 0.27                     |
| <b><i>IV. Basic Factors (Dissatisfiers)</i></b>         |                                                                             |                          |                          |
| 2                                                       | The exhibition concept (theme, structure, accompanying events).             | 0.63                     | 0.32                     |
| 6                                                       | The significance and reputation of the fair.                                | 0.84                     | 0.13                     |
| 14                                                      | The presence of leading firms and names at the fair.                        | 0.67                     | 0.36                     |
| 17                                                      | Types of products exhibited.                                                | 0.70                     | 0.42                     |
| 18                                                      | The estimated number of leads.                                              | 0.65                     | 0.22                     |
| 19                                                      | The estimated number of visitors.                                           | 0.76                     | 0.64                     |
| 28                                                      | The organizer's reputation.                                                 | 0.61                     | 0.30                     |

|                                                     | Importance (1-5) |
|-----------------------------------------------------|------------------|
| 1. The importance of the research topic             | 5                |
| 2. The importance of the research objectives        | 5                |
| 3. The importance of the research methodology       | 5                |
| 4. The importance of the research results           | 5                |
| 5. The importance of the research conclusions       | 5                |
| 6. The importance of the research implications      | 5                |
| 7. The importance of the research limitations       | 5                |
| 8. The importance of the research contributions     | 5                |
| 9. The importance of the research findings          | 5                |
| 10. The importance of the research outcomes         | 5                |
| 11. The importance of the research impact           | 5                |
| 12. The importance of the research significance     | 5                |
| 13. The importance of the research relevance        | 5                |
| 14. The importance of the research validity         | 5                |
| 15. The importance of the research reliability      | 5                |
| 16. The importance of the research generalizability | 5                |
| 17. The importance of the research applicability    | 5                |
| 18. The importance of the research transferability  | 5                |
| 19. The importance of the research sustainability   | 5                |
| 20. The importance of the research replicability    | 5                |
| 21. The importance of the research robustness       | 5                |
| 22. The importance of the research consistency      | 5                |
| 23. The importance of the research coherence        | 5                |
| 24. The importance of the research clarity          | 5                |
| 25. The importance of the research precision        | 5                |
| 26. The importance of the research accuracy         | 5                |
| 27. The importance of the research objectivity      | 5                |
| 28. The importance of the research impartiality     | 5                |
| 29. The importance of the research honesty          | 5                |
| 30. The importance of the research integrity        | 5                |
| 31. The importance of the research transparency     | 5                |
| 32. The importance of the research accountability   | 5                |
| 33. The importance of the research responsibility   | 5                |
| 34. The importance of the research ethicality       | 5                |
| 35. The importance of the research lawfulness       | 5                |
| 36. The importance of the research propriety        | 5                |
| 37. The importance of the research decency          | 5                |
| 38. The importance of the research respectability   | 5                |
| 39. The importance of the research honorability     | 5                |
| 40. The importance of the research nobility         | 5                |
| 41. The importance of the research excellence       | 5                |
| 42. The importance of the research distinction      | 5                |
| 43. The importance of the research superiority      | 5                |
| 44. The importance of the research preeminence      | 5                |
| 45. The importance of the research supremacy        | 5                |
| 46. The importance of the research dominance        | 5                |
| 47. The importance of the research ascendancy       | 5                |
| 48. The importance of the research preponderance    | 5                |
| 49. The importance of the research prevalence       | 5                |
| 50. The importance of the research popularity       | 5                |
| 51. The importance of the research notoriety        | 5                |
| 52. The importance of the research infamy           | 5                |
| 53. The importance of the research disrepute        | 5                |
| 54. The importance of the research dishonor         | 5                |
| 55. The importance of the research disgrace         | 5                |
| 56. The importance of the research shame            | 5                |
| 57. The importance of the research humiliation      | 5                |
| 58. The importance of the research degradation      | 5                |
| 59. The importance of the research debasement       | 5                |
| 60. The importance of the research devaluation      | 5                |
| 61. The importance of the research depreciation     | 5                |
| 62. The importance of the research devaluation      | 5                |
| 63. The importance of the research depreciation     | 5                |
| 64. The importance of the research devaluation      | 5                |
| 65. The importance of the research depreciation     | 5                |
| 66. The importance of the research devaluation      | 5                |
| 67. The importance of the research depreciation     | 5                |
| 68. The importance of the research devaluation      | 5                |
| 69. The importance of the research depreciation     | 5                |
| 70. The importance of the research devaluation      | 5                |
| 71. The importance of the research depreciation     | 5                |
| 72. The importance of the research devaluation      | 5                |
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| 80. The importance of the research devaluation      | 5                |
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| 85. The importance of the research depreciation     | 5                |
| 86. The importance of the research devaluation      | 5                |
| 87. The importance of the research depreciation     | 5                |
| 88. The importance of the research devaluation      | 5                |
| 89. The importance of the research depreciation     | 5                |
| 90. The importance of the research devaluation      | 5                |
| 91. The importance of the research depreciation     | 5                |
| 92. The importance of the research devaluation      | 5                |
| 93. The importance of the research depreciation     | 5                |
| 94. The importance of the research devaluation      | 5                |
| 95. The importance of the research depreciation     | 5                |
| 96. The importance of the research devaluation      | 5                |
| 97. The importance of the research depreciation     | 5                |
| 98. The importance of the research devaluation      | 5                |
| 99. The importance of the research depreciation     | 5                |
| 100. The importance of the research devaluation     | 5                |



Comparing henceforth the allocation of satisfaction attributes between public fairs and trade-shows leads to mixed results (see Table 2). However, since the numeric value of each item has a statistical error along both axes, which is not displayed, the binning of these items, as displayed in Table 2, becomes somewhat accidental, especially if the items lie close to the dividing lines of the quadrants.

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| Item | Service item                                                                | Business-to-consumer | Business-to-business |
|------|-----------------------------------------------------------------------------|----------------------|----------------------|
| 1    | The industry overview.                                                      | n/s                  | II                   |
| 2    | The exhibition concept (theme, structure, accompanying events).             | IV                   | IV                   |
| 3    | The proximity of the fair to your own location.                             | I                    | I                    |
| 4    | Type of visitors.                                                           | IV                   | II                   |
| 5    | The qualification of fair visitors.                                         | IV                   | n/s                  |
| 6    | The significance and reputation of the fair.                                | IV                   | IV                   |
| 7    | The industry understanding the fair management and staff provides.          | III                  | I                    |
| 8    | The quality of personal contacts with the fair management and staff.        | III                  | I                    |
| 9    | The networking and sales opportunities at the fair.                         | II                   | II                   |
| 10   | The quality of services provided.                                           | IV                   | n/s                  |
| 11   | The safety of the fair location.                                            | I                    | III                  |
| 12   | The reliability of fair management and staff.                               | IV                   | II                   |
| 13   | The offer of any required services through the fair organizer.              | III                  | III                  |
| 14   | The presence of leading firms and names at the fair.                        | I                    | IV                   |
| 15   | The attractiveness of the location (gastronomy, culture, sight-seeing etc.) | III                  | III                  |
| 16   | The adaptability of services tailored to specific needs.                    | III                  | III                  |
| 17   | Types of products exhibited.                                                | II                   | IV                   |
| 18   | The estimated number of leads.                                              | IV                   | IV                   |
| 19   | The estimated number of visitors.                                           | IV                   | II                   |
| 20   | The estimated costs of exhibiting.                                          | II                   | II                   |
| 21   | The estimated publicity.                                                    | II                   | II                   |
| 22   | Types of exhibitors.                                                        | III                  | IV                   |
| 23   | The estimated sales at venue.                                               | IV                   | III                  |
| 24   | The facilities at venue.                                                    | II                   | II                   |
| 25   | The frequency of event.                                                     | I                    | I                    |
| 26   | The duration of event.                                                      | II                   | II                   |
| 27   | The date of event.                                                          | II                   | II                   |
| 28   | The organizer's reputation.                                                 | IV                   | IV                   |

The following discussion focuses on the comparison of the location of individual service items in the grid between tradeshow and public exhibitions.

**a) Items with stable allocation independent on the type of show**

Out of 26 items, which can be compared, 14 exhibit a stable allocation in their respective quadrant, although their exact position within may vary (see Table 2). Because they are stable they can be used as a managerial tool to qualify exhibitor satisfaction independent of the type of show. Public fairs display a somewhat larger number of basic factors (10), compared to tradeshow (7), although only four of them are 'stable' regarding the type of show. Item 3 (proximity of the fair location) is only relevant for independent fair organizers. Items 25 and 26 (frequency of the event and date of the event) are often very difficult to change by the organizers due to internal and external constraints, e.g. exhibition portfolio, public holidays etc. Item 25 is the only 'stable' satisfier identified. Item 28 (reputation of the organizers) as well as item 6 (significance and reputation of the fair) are basic factors for both types of exhibitions. As a managerial consequence excessive investments in branding and image campaigns do not contribute much to customer's satisfaction. Out of those 'stable' 14 service items ten are performance factors of either low or high importance. Their inclusion in questionnaires about exhibitor satisfaction can yield insight into relative performance of different products of the same organizer.

**b) Items located in different quadrants of the grid depending on the type of show**

For exhibitors at trade shows the items 4 (type of visitors) and 19 (the estimated number of visitors) are clearly a performance factor of high importance; whereas at public exhibitions they are considered basic factors. This reflects the fact, that at tradeshow sales are chiefly initiated and at public exhibitions they are actually performed. Along the same line of arguments the item 23 (estimated number of sales at venue) is a basic factor of satisfaction at public exhibitions. Item 7 (the industry understanding the fair management and staff provides) is definitely a key satisfier, or, from another perspective, a key factor of success, of every tradeshow organizer. Although, for public exhibitions it is considered a performance factor of low importance. For public exhibitions the number of visitors (item 19) is clearly a dissatisfier, especially when too low. Exhibitors at trade shows are much concerned about the number of visitors (item 19) at their booth and about the type of visitors (item 4). They are also concerned about the types of products exhibited at the show (item 17 in quadrant II). The organizers of tradeshow are therefore ill-advised when filling up booth empty booth space with exhibitors outside or the scope of the show. From the same perspective the allocation of item 7 (the industry understanding the fair management provides) and of item 8 (the quality of personal contacts with the fair management and staff) into quadrant I for tradeshow and into quadrant III seems to be quite logical. The presence of leading firms at the show (item 14) is a basic factor with tradeshow and in contrast a satisfier with public exhibitions.

## **5 Conclusion and limitations**

The present study has shown that Vavra's importance grid is a useful method to compare perceived requirements and satisfaction items of the exhibitors at tradeshow and public exhibitions. Differences between the two categories of shows, with respect to basic factors, performance factors and satisfiers, can be identified. This information can be used as a managerial guideline for fair organizers in the design of questionnaires about exhibitors' satisfaction, depending upon which market they serve (industrial or consumer).

However, the study is facing some limitations, that could be overcome by further research. First, the study focuses on the Swiss market. Further research should include data from other markets. Second, the visitors' influence on the performance of exhibitions was not included. Third, the calculation of implicit importance includes the use of natural logarithms of the score of the individual items in order to yield a desired non-linear relationship. This methodology is not backed

by any theory. Fourth, for both types of exhibitions the number of satisfiers in quadrant I is deceptively low, which reflects the shortcoming of this method compared to Kano's.

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