The relative impact of demand proximity and supply aggregation on exhibitor evaluation of international trade fairs

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Introduction

Trade fairs are important marketing instruments that absorb a significant share of the promotional investments of firms operating in business markets. The managerial relevance of the topic has fostered the accumulation of an extensive body of empirical research that, in most cases, addresses a simple research questions: how can industrial marketers maximize the returns on their trade fair instruments? In most cases, extant contributions imply a view of trade fair participation as a zero-sum game, where suppliers-exhibitors compete against each other to attract the attention of customers-visitors and convert trade fair contacts into actual purchases (e.g. Gopalakrishna & Lilien 1995; Smith, Gopalakrishna & Smith 2004). While focalization on individual exhibitors' strategies has contributed much to the understanding of trade fair effectiveness, recent research suggested that trade fairs function as *collective marketing instruments* characterized by a temporary, promotional aggregation of suppliers that leads to increased demand (Rinallo, Golfetto, Gibbert 2005) because of the reduced search costs for customers, particularly in industries with high level of product heterogeneity. Ethnographic research conducted at several European trade fairs (Borghini, Golfetto, Rinallo 2004, 2005) documented the cultural aspect of aggregation: as inter-organizational rituals that are cyclically enacted, trade fairs foster in exhibitors *communitas*, i.e. a sense of belonging to a same community. These contributions proposed that as well as focusing on individual exhibitor value-appropriation strategies, research should also examine the collective value-creation function of trade fairs. This paper contributes to this literature by proposing a quantitative study that investigates the relative impact of competitor and customer presence on exhibitor evaluation of a given trade fair.

Methods & Hypotheses

The data on which this study is based were gathered in the context of two Italian international trade fairs:

- Pack-Mat: held in Bologna (June 2004), an exhibition dedicated to the packaging industry;
- Moda Prima: held in Milan (November 2005), a trade fair dedicated to fashion-apparel distributors.

The two trade fairs are different in terms of audiences attracted: Pack-Mat attracts suppliers of capital goods as exhibitors and producers of consumer goods as visitors, whereas Moda Prima attracts suppliers of consumer goods as exhibitors and large retailers as visitors. Both events are however professional trade fairs open to business operators only and were chosen with the intent of generalizing research findings beyond a single empirical setting.

An exploratory analysis was conducted on a sample of potential exhibitors of both trade fairs (Pack-Mat and Moda Prima). The analysis consisted in in-depth interviews with marketing or event managers and was aimed at investigate the criteria used by these firms to decide whether to exhibit or not at a trade fair and to evaluate the efficacy of their participation.

This preliminary study was functional for developing the questionnaire submitted to all companies exhibiting at Pack-Mat and Moda Prima. The survey included questions regarding:

- the overall evaluation of the trade fair;
- the rating of items regarding quantity and quality of exhibitors;
- the rating of items regarding quantity and quality of visitors;
- company's profile (size, sectors of activity, etc.).

Each evaluation item was measured on a 1-5 scale, where 1 corresponds to the minimum level and 5 to the maximum level.

Overall, 366 questionnaires were distributed, and the survey resulted in 297 compiled questionnaires collected at the end of the fairs, with a redemption rate of about 81%. The final database consisted of 163 usable observations, as some questionnaires had several missing values and were not usable.

An early analysis of data collected showed significant correlation between different items (see Annex 1), and we thus decided to apply a factor analysis. Results of factor analysis are reported by Tables 1-2[1].

Tab. 1 - Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2,881	48,015	48,015	2,881	48,015	48,015	2,138	35,631	35,631
2	1,250	20,825	68,840	1,250	20,825	68,840	1,993	33,210	68,840
3	,708	11,793	80,634						
4	,474	7,896	88,529						
5	,393	6,553	95,083						
6	,295	4,917	100,000						

Extraction Method: Principal Component Analysis.

Tab. 2 - Rotated Component Matrix[a]

	Component	
	1	2
Presence of Foreign visitors	,880	
Precence of visitors with purchasing power	,807	
Total number of visitors	,764	
Comprehensiveness of the offer exhibited		,869
Quality and the importance of exhibitors		,846
Presence of innovative solutions		,625

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

The following two factors, accounting for 68.84% of total variance, were extracted:

- Factor 1 (which explains 35.63% of total variance) is highly related with items "measuring" trade fair's visitors (their presence, their purchasing power, their level of internationalization). In our view, it "captures" proximity to demand as measurable by the quantity and quality of visitors-customers attracted by trade fairs. We thus label this factor "Quality/quantity of visitors";

– Factor 2 (which explains 33.21% of total variance) is related with items referred to the trade fairs' exhibitors (the comprehensives of the offer exhibited, the importance of firms exhibiting, the quality of innovation showed). This factor, in our interpretation, "captures" perceived benefits linked to the aggregation to other producers, as measured by the quantity and quality of exhibitors-suppliers attracted by trade fairs. We thus label this factor as "Quality/quantity of exhibitors".

We employed these two factors as predictors of exhibitor evaluation of the trade fair, in order to test hypotheses that follow.

First, according to recent research suggesting that trade fairs function as collective marketing instruments (Rinallo, Golfetto, Gibbert 2005), we hypothesized that:

H1: Exhibitor trade fair evaluation is positively linked to the quantity and quality of other exhibitors.

We also hypothesized that a difference exists between market leaders and followers with respect to the magnitude of these effects. Borghini, Golfetto & Rinallo (2005) shown that visitors typically dedicate the first part of their trade fair time to obtain information about technological and style innovation from market leaders; the remaining of the time of visit is mostly devoted to existing suppliers, and only marginal time is employed to search for new (non market leader) suppliers. The presence of market leaders is thus one of the main reasons to visit a given trade fair. Larger firms thus contribute 'positive externalities', as their presence attracts customers, while not receiving similar benefits in turn from the presence of smaller firms. Put differently, smaller firms benefits from heightened demand linked to the presence of market leaders, without adding much to the information externalities available to customers. We thus propose the following hypothesis.

H2: Large exhibitors' trade fair evaluation is less impacted by the quantity and quality of other exhibitors than that of smaller companies.

Research findings

Both hypotheses were verified. As shown in Table 1, H1 was confirmed: exhibitor evaluation of the trade fair we examined depends on both exhibitor and visitor presence and, approximately, to similar extents, as expressed by the Beta coefficients of the multiple linear regression. The model explains around 39% of the variance in the dependent variable, which can be considered relatively high. In sum, we found that exhibitors value not only the presence of visitors, which would be a rather trivial research finding, but also the co-presence of their own competitors, which is rather counterintuitive when adopting a "zero-sum game" perspective.

TABLE 1 – Results of Linear Regression:

Trade fair evaluation as a function of demand proximity and supply aggregation

Independent Variable	*Unstandardized Beta coefficients*
Intercept	2.542*** (.073)
Quality/quantity of visitors-customers	.531*** (.075)
Quality/quantity of exhibitors-suppliers	.534*** (.073)
R Squared	0.389

a Standard errors are in parentheses. N = 163.
b Dependent variable is "Trade fair evaluation".
*** $p < 0.001$

Moreover, differences exist in the relative impact of demand proximity and supply aggregation on trade fair evaluation on the basis of exhibitor size, as predicted in H2. Tables 2a,b report the result of separate regressions performed on sub-samples based on exhibitor size. In Table 2a, the cut point is €

5,000,000, which leads to approximately equal sub-samples. In Table 2b, the cut point is €25,000,000, which leads to a relatively small sub-sample of larger firms.

In both cases, larger exhibitors' trade fair evaluation is impacted more by demand proximity than by supplier aggregation. This is more evident when large size is defined in a more restrictive manner (i.e., in Table 2b). For smaller exhibitors, on the other hand, supply aggregation has even a stronger (positive) impact on their evaluation of the trade fair. In sum, these research findings are consistent with the view that larger exhibitors perceive to benefit less than smaller ones from the temporary, promotional co-location brought about by trade fairs. Also for these firms, however, while less relevant than proximity to customers, belonging to a "good" (i.e., large, high-quality, innovative) exhibitor mix is a significant predictor of trade fair evaluation.

TABLE 2a – Results of Linear Regression:

Trade fair evaluation as a function of demand proximity and supply aggregation

Independent Variable	Smaller exhibitors *	Larger exhibitors*
Intercept	2.489*** (.123)	2.632*** (.092)
Quality/quantity of visitors-customers	.448*** (.120)	.628*** (.093)
Quality/quantity of exhibitors-suppliers	.590*** (.141)	.478*** (.081)
R Squared	0.296	0.504

* Smaller (larger) exhibitors have a turnover of €5,000,000 or less (more).
a Standard errors are in parentheses. N = 77 for smaller exhibitors, 86 for larger ones.
b Dependent variable is "Trade fair evaluation".
*** $p < 0.001$

TABLE 2b – Results of Linear Regression:

Trade fair evaluation as a function of demand proximity and supply aggregation

Independent Variable	Smaller exhibitors *	Larger exhibitors*
Intercept	2.515*** (.082)	2.721*** (.207)
Quality/quantity of visitors-customers	.481*** (.084)	.718*** (.183)
Quality/quantity of exhibitors-suppliers	.504*** (.080)	.518** (.212)
R Squared	0.335	0.507

* Smaller (larger) exhibitors have a turnover of €25,000,000 or less (more).
a Standard errors are in parentheses. N = 129 for smaller exhibitors, 34 for larger ones.
b Dependent variable is "Trade fair evaluation".
*** $p < 0.001$ - ** $p < 0.05$

Contribution

While acknowledging that the findings we reported have to be validated in other empirical contexts to achieve generalizability, we believe that our study contributes to both theory and practice. As regard the former, we shown that the co-presence of competitors, rather being resented or feared, positively contributes to exhibitors' evaluation of a given trade fair, particularly in the case of smaller companies that, in Europe, constitute the majority of European industries. We are not the firsts to make similar claim. Borghini, Golfetto & Rinallo (2004, 2005) documented the cultural basis of these exhibitor perceptions: being together in front of customers and, more in general, the world fosters a sense of communion, of belonging to the same community of companies, particularly in situations of economic downturn when the future appears uncertain. Our study thus validates with a quantitative, hypothesis-testing research design Borghini *et. al.*'s (2004, 2005) ethnographic data and corroborates the view of trade fairs as collective marketing instruments proposed by Rinallo *et al.* (2005).

Our research findings also have managerial implications. When conceiving trade fairs as collective marketing instruments, the role of the Organizer, rather than the exhibitor, is put on the forefront (Rinallo *et al.* 2005). Much like retailers that have to design an assortment of products to satisfy the needs of a market segment, also trade fair organizers have to assemble an assortment of suppliers, products, solutions. But in doing so, they face greater degrees of complexity than in the case of retailers, as attracting and retaining the right mix of exhibitors is, so to speak, an "organizational problem" that requires extended interactions, the building and maintaining of relationships, and the managing of (temporary) networks. Our study provides guidance to trade fair Organizers: trade fairs attractiveness for smaller exhibitors is highly dependent on the presence of market leaders that thus have to be courted and retained both in the case of established and new trade fairs initiatives.

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