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Impact of Pavilion Quality on Exhibitor Performance at an International Trade Exhibition

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Abstract

This study aimed to determine how the quality of a pavilion affects participating exhibitors at an overseas trade exhibition and to suggest strategies for an organizer of pavilions to operate more effectively so as to increase exhibitors’ positive outcomes. We constructed a research model and presented some hypotheses. To assess these hypotheses, questionnaires were distributed to exhibitors who had participated in a Korean pavilion at an international trade exhibition. SPSS 16.0 software was used to analyze the data. First, the factors that determined the quality of a pavilion were analyzed to assess their effect on participant outcome. The only two factors that were found to influence the quality of a pavilion were the conditions of an exhibitor's booth and the support activities by the organizers. These had positive effects on participating exhibitors’ outcomes and anticipated future behaviors. To increase the positive outcomes of exhibitors, various changes should be made to improve the conditions of exhibitors’ booths. The pavilion organizer should also develop other ways to increase the positive outcomes of exhibitors such as local advertising and promotional activities, on-site support activities, invitations to buyers’ luncheons, promotional catalogs for exhibitors, and activities to attract potential buyers.

Keywords: pavilion; international trade exhibition; exhibitor; organizer; booth; buyer

1. Introduction

A trade exhibition is one of many tools by which domestic and overseas companies market their goods and/or services to visitors and buyers. Trade exhibitions have recently been shown to be one of the best marketing tools. Most governments in developed countries are encouraging their growth as a part of their national business policy.

The objective of exhibitors is to obtain opportunities to analyze and access target markets, to effectively promote sales, to find new buyers, and to exploit overseas markets. On the other hand, visitors have opportunities to obtain the latest information, to address manufacturing problems, to compare their products with those of competitive manufacturers, and to enjoy the general excitement of
visiting trade exhibitions. As the popularity of trade exhibitions has grown, enterprises all over the world have increased their participation to exploit overseas and domestic markets.

Large domestic enterprises and small and medium enterprises (SMEs) participate in overseas trade exhibitions as individuals or in groups [8]. An individual enterprise may participate independently, and SMEs primarily participate together in groups at a Korea pavilion or a pavilion sponsored by a local administrative unit.

According to KOTRA and AKEI, most enterprises prefer to participate jointly at a pavilion, but the ratio of exhibitors participating in pavilions is gradually decreasing.

Although individual participation costs more than joint participation, the fact that the ratio of exhibitors willing to participate individually is gradually increasing suggests that, at least in the case of SMEs, the cost of participating in a pavilion is not much lower than participating individually, and the results are less beneficial.

Given these circumstances, in this paper, we aim to examine which factors determine the quality of a pavilion at an overseas trade exhibition, to analyze how the quality of the pavilion impacts the outcomes of participating exhibitors, and to present suggestions for strategies by which pavilion organizers might operate to ensure that exhibitors achieve more positive outcomes.

2. Related Research

2.1. Exhibition as a Marketing Tool

Marketing is a systematic management activity related to the distribution of merchandise and/or services to consumers. Professor Jerome McCarthy classifies marketing into four key areas: product, price, place, and promotion (the ‘four Ps’). A trade exhibition falls under ‘promotion’ activities. We can break down promotion activities into advertising, sales personnel, sales promotion, and public relations (PR) activities. A trade exhibition is a sales promotion activity.

Recently, trade exhibitions have been emphasized as an integrated marketing tool, providing a complete marketing mix of price, distribution channel, product, and communication. In a trade exhibition, these combine in a complementary manner to provide a complete business target as well as a marketing promotion tool (Kim and Suh, 2004).

According to a survey by the Center for the Exhibition Industry Research (CEIR), advertisements have greater “brand image” effects than have trade exhibitions. However, trade exhibitions create more effective results than advertisements in all other respects. Also, according to Kim (2005), exhibitors spend a greater share of their product promotion costs on participating in trade exhibitions. This has been interpreted as indicating that trade exhibitions have the greatest effect on marketing activities from the viewpoint of exhibitors.

2.2. Studies of business outcomes of exhibitors participating in trade exhibitions

Although trade exhibitions are used as an effective marketing tool by many SMEs, it is difficult to measure their business outcomes. It takes a long time for new buyers to buy products that they have seen at a trade exhibition. Also, as exhibitors participate in trade exhibitions with differing purposes and targets, methods for measuring success are diverse.

However, it is important to accurately estimate the results of participation in trade exhibitions. To make better decisions concerning trade exhibitions, exhibitors might use the number of visitors to
compare participation costs and outcome effects.

3. Research Design

3.1. Research Model and Hypotheses

Research Model
In this research, we analyzed the impact of factors related to the quality of an overseas trade exhibition pavilion on the outcomes of participating exhibitors.

Hypotheses

(1) Relationship between pavilion quality and participant outcomes
An improvement in the quality of a pavilion has an impact on positive outcomes for the exhibitors. The following hypothesis 1 (H1) is thus:

\[ H_{1,1}: \text{The quality of the pavilion significantly impacts participant outcomes at a trade exhibition (from the point of view of the exhibitor)} \]
\[ H_{1,2}: \text{The quality of the pavilion significantly impacts the information-gathering outcomes} \]
\[ H_{1,3}: \text{The quality of the pavilion significantly impacts the image-building outcomes} \]
\[ H_{1,4}: \text{The quality of the pavilion significantly impacts the relationship-building outcomes} \]
\[ H_{1,5}: \text{The quality of the pavilion significantly impacts the outcome of motivational activities} \]

(2) Relationship between pavilion quality and positive results
Previous research noted that such positive results as re-use intentions of buyers and exhibitor’s word-of-mouth intentions depended on the level of satisfaction provided to customers. Thus, we suggest that the service quality that a pavilion organizer provides has an effect on the positive results of exhibitors. Thus, hypothesis 2 (H2) is:

\[ H_{2,1}: \text{The quality of the pavilion significantly impacts post-exhibition actions of exhibitors} \]
\[ H_{2,2}: \text{The quality of the pavilion significantly impacts re-participation intentions of exhibitors} \]
\[ H_{2,3}: \text{The quality of the pavilion significantly impacts recommendations by exhibitors} \]

(3) Relationship between post-exhibition actions and participation outcome
Consumer satisfaction has an effect on the desire to re-visit a locale. Indeed, consumer satisfaction is an important variable (Bearden and Teel, 1983). On the base of this research, hypothesis 3 (H3) is:

\[ H_{3,1}: \text{Participation outcomes significantly impact post-exhibition actions} \]
\[ H_{3,2}: \text{Information-gathering outcomes significantly impact post-exhibition actions} \]
\[ H_{3,3}: \text{Image-building outcomes significantly impact post-exhibition actions} \]
\[ H_{3,4}: \text{Relationship-building outcomes significantly impact post-exhibition actions} \]
\[ H_{3,5}: \text{Outcomes of motivational activities significantly impact post-exhibition actions} \]
\[ H_{3,6}: \text{Export sales-related outcomes significantly impact post-exhibition actions} \]

3.2. Operational Definitions and Measurement of Variables
The purpose of this research, above all, was to determine how the quality of the pavilion affects participant outcomes. Thus, the importance of the variables was assessed by setting the quality of the pavilion as the independent variable. Participation outcomes and post-exhibition intentions of the
exhibitors were then dependent variables.

Thus, for this research, three variables were used: pavilion quality, participation outcome of exhibitors, and post-exhibition actions of exhibitors. The nine factors constituting pavilion quality were measured as shown in Table 1.

| Table 1. Pavilion quality factors |
|----------------------------------|
| Outline of pavilion              | Location, Size, Design |
| Features of pavilion             | Number of exhibitors, Display items, Exhibitor’s awareness in industry |
| Operating features of pavilion   | Location, Number of booths, Size, Expertise of promotional booth operating personnel |
| Promotional booth                | Provide samples, Demonstrate products on site, Distribute catalogs |
| Expertise of booth               | Level of education regarding item information |
| Operating personnel              | Professionalism (foreign language proficiency, participation experience) |
| Equipment level                  | Lighting, Walls, Floor carpeting, Company sign board, Booth shelving, Table and chairs, Booth desk |
| Trade-meeting support            | Briefing on the local market place, Business matching with local influential buyers, Provision of a separate place for consultations with buyers |
| Local promotional activities     | Local advertising and PR activities, On-site support activities, Invitations to buyers’ luncheon |
| by the pavilion organizer        | Interpreting service support, Preparation of a promotional catalog for exhibitors and the pavilion, Pre-exhibition activities of the pavilion organizer to attract buyers |

3.3. Method of Analysis

The SPSS software (ver. 18.0) was used for coding collected data and for the main analyses. Statistical analysis methods were used with the collected data as follows. First, frequency analysis was used to analyze exhibitor characteristics. Second, reliability and validity analyses were conducted. Finally, multiple regression analyses were used for hypothesis testing.

4. Empirical Analysis and Hypothesis Testing

4.1. Data Collection

To realize the purpose of this research, a questionnaire was sent to enterprises that had participated in the Korea pavilion of an overseas exhibition. E-mail and on-site questionnaire collection was performed from September 6 to October 10, 2010. In total, 185 questionnaires were collected, but only 168 were used in the final analysis; 17 were judged to be incomplete or untrustworthy.

4.2. Reliability and Validity Tests

Reliability Test

Cronbach’s alpha coefficient was estimated to assess the reliability of several items used as determinants of pavilion quality, participation outcome, and post-exhibition action factors.

Cronbach’s alpha coefficient is widely used to assess internal consistency and reliability. It is a positive function of the average correlation between items in a scale and the number of items in the scale. The logic is quite straightforward: the higher the average correlation is, the lower the "error" or "unique" components of items are; the more items there are, the greater is the likelihood that errors will
cancel out. If Cronbach’s alpha is between 0.6 and 0.9, the questionnaire is considered reliable, and the
closer the value is to 1, the more reliable the questionnaire is. In this research, we adopted a Cronbach’s
alpha value of 0.7 as the minimum acceptable level.

The reliability test results for the determinants of pavilion quality are shown in Table 4. Because the
alpha value for the external appearance of the pavilion was calculated as only 0.589, the internal
consistency of this item was judged to be inadequate, and it was excluded from the analysis.

Among the variables considered, ‘understanding a customer’s dissatisfaction-desire-preference level’
and ‘understanding new circulation channels’ were excluded from calculations as a result of reliability
analyses concerning the participant outcome measurement items. All of the remaining variables had
adequate internal consistency.

Validation Test

Validity refers to how well a measurement tool that was developed to measure a specific concept or
attribute actually measures that concept or attribute. Regardless of the variable chosen, if it is measured
with the wrong measurement tool, the resulting values may be meaningless. For this research, we used
exploratory factor analysis (EFA) to conduct a concept-validity test concerning the research concepts
reflected in several items, such as the factors affecting the pavilion in a trade exhibition and participant
outcomes. In the exploratory factor analysis, principle-component analysis (PCA) was used for factor
extraction, and a verimax method was used for factor rotation.

The EFA for the pavilion quality factors showed that the factor analysis was suitable, as the total
variance and the Kaiser-Meyer-Okin (KMO) value were 73.651% and 0.786 respectively. Furthermore,
results of the Bartlett’s multisample sphericity test ($P$ value = 0.0000) showed that the null hypotheses
(correlation and identity matrices) were rejected.

Results of the EFA of factors contributing to pavilion outcome were significant, showing total
variance and KMO value of 73.651% and 0.823 respectively. Bartlett’s multisample sphericity test
($P$ value = 0.0000) revealed that the null hypotheses (correlation and identity matrices) were rejected.

Final Research Model

After removing the variables with low reliability and low factor loading in the reliability analysis
(RA), EFA results were used to improve the first research model.

4.3. Hypothesis Testing

Effect of the quality of the pavilion on the exhibitor’s participation outcome.

Multiple regression analysis was performed to examine the component factors of pavilion quality that
affect an exhibitor’s outcomes. Component factors were adopted for pavilion quality (exhibitor’s
booth-equipment level, organizer’s support activities, export sales meeting introduction, local activities
for exhibitors, promotional booth features, and expertise of booth operating personnel) as the
independent variables, and component factors were selected for participation outcomes (motivation,
sales expertise, image building, and information gathering) as dependent variables. Results of this
analysis are shown in Table 4.

| Dependent variable | Independent variable | Unstandardized coefficients | Standardized coefficients | t | p-value |
|--------------------|----------------------|----------------------------|--------------------------|---|---------|
| Model Summary      |                      |                            |                          |   |         |
The independent variables that had a significant effect on motivational activities were the exhibitor’s booth-equipment level and organizer support activities.

The independent variables that had a significant effect on sales were the exhibitor’s booth-equipment level, organizer support activities, local activities of exhibitors, and expertise of booth operating personnel.

The independent variables that had a significant effect on image building were the exhibitor’s booth-equipment level, local activities of exhibitors, export sales meeting introduction, promotional booth features, and expertise of booth operating personnel.

Finally, the independent variables that had a significant effect on information gathering were the exhibitor’s booth-equipment level and organizer support activities.

**Effects of the quality of a pavilion on exhibitors’ post-exhibition actions**

Multiple regression analysis was conducted to examine how pavilion quality factors affected post-exhibition actions of exhibitors. Of the many factors listed above that reflect pavilion quality, exhibitors’ booth-equipment level, promotional activities of the pavilion organizer, export-meeting support, and operating features of the promotional booth, that is, those factors that the pavilion organizer supports, were adopted as dependent variables; reparticipation intentions and recommendations, which constitute postexhibition actions of exhibitors, were used as independent variables. (Table 5)

**Table 5. Results of hypothesis 2 testing**

| Dependent variable | Independent variable | Unstandardized coefficients | Standardized coefficients | t | p-value | Model Summary |
|--------------------|----------------------|-----------------------------|---------------------------|---|---------|---------------|
| Re-participation   |                      | B                            | Standard error            | B | .001   | .000          |
|                    |                      | .210                         | .068                      |    |         | R²: 0.251     |
|                    |                      | .487                         | .068                      | .489| 7.178  | adj R²: 0.233 |
|                    | Re-participation     | -4.882                      | .071                      | .000| .000   | R²: 0.251     |
|                    |                      | .370                         | .072                      | .250| 5.167  | adj R²: 0.233 |
The results of this analysis were as follows. First, the exhibitor’s booth-equipment level had a significant impact on exhibitors’ re-participation intention. To reveal other factors that had an impact on exhibitor’s re-participation intention, additional regression analysis was performed using 11 detailed factors corresponding to the hypothesis that was dismissed in the first regression analysis as dependent variables and using re-participation intention as an independent variable. The results were that an invitation to the buyers’ luncheon (p = 0.012), the development of a promotional catalog for the exhibitors and pavilion (p = 0.038), the preexhibition activities of the pavilion organizer to attract buyers (p = 0.080), and matching with local influential buyers (p = 0.097) all had significant impacts on re-participation intentions.

The second result was that an exhibitor’s booth-equipment level and export meeting support significantly impacted recommendations for re-participation.

To reveal the other factors that had an impact on recommendation intention, an additional regression analysis was performed using eight detailed factors corresponding to the hypothesis that was dismissed in the first regression analysis as dependent variables and using recommendation intention as an independent variable.

The results showed that on-site support activities for facilitating an enterprise’s business flow (p = 0.005), some local advertising and PR activities (p = 0.010), preparation of a promotional catalog for the exhibitors and the pavilion (p = 0.093), and pre-exhibition activities of the pavilion organizer to attract buyers (p = 0.094) significantly affected favorable recommendations.

In short, this analysis suggested that the major factors significantly impacting favorable recommendation of exhibitors for re-participation were simply supporting activities performed by the trade-exhibition organizers to promote exhibitors.

### Effects of outcome of participation in a pavilion on the post-exhibition actions of exhibitors

Regression analysis was performed considering most outcomes of motivational activities, sales, imaging-building, and information–gathering activities as dependent variables and considering re-participation and recommendations as independent variables. That is, detailed factors were analyzed to determine the participant outcomes that influence the post-exhibition actions of exhibitors.

The results of this analysis were as follows. It appeared that the better a firm’s outcome was after participation in a trade exhibition, the more willing that firm was to participate in a future exhibition and to recommend participation to other potential exhibitors in the near future. However, the findings also suggested that the volume of export sales had a negative impact on recommendations, perhaps due to severe competition. (Table 6)

| Dependent variable | Independent variable | Unstandardized coefficients | Standardized coefficients | T | p-value | Model Summary |
|--------------------|----------------------|-----------------------------|---------------------------|---|---------|---------------|
| Re-participation recommendation | ① | -.010 | .096 | .138 | 2.229 | .027** |
| Re-participation recommendation | ② | .303 | .062 | .304 | 4.916 | .000 |
| Re-participation recommendation | ③ | .249 | .069 | .247 | 3.991 | .000 |
| Re-participation recommendation | ④ | .380 | .061 | .382 | 6.187 | .000 |
| Re-participation recommendation | ⑤ | .302 | .067 | .303 | 4.896 | .000 |
### 5. Conclusions

In this paper, we aimed to identify factors that determine the quality of an overseas trade-exhibition pavilion, to analyze how pavilion quality impacts the outcomes for exhibitors, and then to suggest strategies that an organizer of a pavilion might use to operate the pavilion effectively and to optimize exhibitors’ outcomes.

To address these aims, an empirical study was conducted to establish a research model and hypotheses based on a theoretical background; then, questionnaires were used to gather data to test the hypotheses. The results of this study were as follows.

First, factors determining pavilion quality according to each type of business outcome were obtained by examining factors affecting business outcome of exhibitors who participated in overseas trade exhibitions.

From the point of view of an exhibitor, the results of the hypothesis testing regarding the relationship between business outcome and post-exhibition actions by participants in an overseas trade exhibition indicate that all kinds of participating outcomes had significant positive effects on re-participation and recommendations, with the exception that export-sales outcome negatively impacted recommendations. The outcome of export sales may have had a negative impact on recommendations due to the extreme competitiveness of some companies.

One finding of this study was that pavilion organizers can help by understanding the factors that impact business outcomes and post-exhibition actions of exhibitors who participate in overseas trade exhibitions. Such an understanding can be helpful in establishing pavilion operating strategies.

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|   | Re-participation | Re-participation |
|---|-----------------|------------------|
| ① | -1.571          | .063             |
| ② | .224            | .076             |
| ③ | .063            | .124             |
| ④ | .384            | .070             |
| ⑤ | .370            | .075             |

Note 1 ① Constant, ② Motivational activities, ③ Sales related, ④ Image building, ⑤ Information gathering.

Note 2 * < 0.01, ** < 0.05, *** < 0.1