Marketing Strategies for Nonprofit Organizations: A Case Study of National Science & Technology Museum in Taiwan

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Abstract

This research aims at applying marketing strategies to promoting National Science & Technology Museum, the second biggest museum in Taiwan. We employ the Social Judgment Theory [8] to survey needs and preferences of various interest groups domestically. Based on the survey results we propose National Science & Technology Museum a marketing mix that covers plans for exhibitions, admission fees, multi-media promotion and special events, design of corporate identity systems, recruitment of voluntary workers, etc.

Keywords: Non-profit organization (NPO), social marketing theory, museum.

1. Introduction

There are more than 130 museums in Taiwan, and more than sixty percent of them have been established since 1980. Like many nonprofit organizations (NPOs), these museums are facing problems such as diminishing financial supports, shortage of voluntary workers, closure of operations, and challenges to the quality of their services. How to operate a museum successfully or even develop strategies to revitalize the museum industry becomes an important decision issue. Although many researchers [12,13,15,16,19,23] have promoted the marketing approach to NPOs, the issue of museum marketing in Taiwan has not been discussed until recently, and only limited research has been conducted.

Normally, museums have five main functions of Noble in 1970: acquisition, conservation, research, interpretation, and exhibition [20]. With different consideration of these five functions, various interest groups may have different needs from a museum and sometimes even reveal conflicting opinions on the management of the museum. In this paper, we describe our aims in managing this problem and in applying marketing strategies to National Science & Technology Museum (NSTM), which, with an annual budget more than NT 700 million dollars, is the second biggest museum in Taiwan.

The remainder of this paper is organized as follows. In section 2, we discuss a theoretical account of marketing approach and its relationship with the management of modern museums. Section 3 gives a background of NSTM, Taiwan. Section 4 describes a mailed survey based on the Social Judgment Theory [8] to examine and compare function preferences of different interest groups domestically. The conclusions and suggestions are summarized based on the survey results in section 5.

2. Marketing and Museums

The number and size of the NPO increases in many countries in the world. For example, the NPO has become the biggest employer in the United States [7]. NPOs have also attracted significant amount resources such as money, man-power from volunteers, etc. For instance, the annual donation to Buddhist Compassion Relief Tzu-Chi Function, one of the biggest NPOs in Taiwan, approximates the government annual budget for social welfare. Consequently, the management of NPOs becomes more complicated, and various approaches have been proposed to promote NPOs. The idea of applying marketing approach to NPOs started between 1969 and 1973, and reached its maturity in the late 1980s [12,13].

Museums are viewed as NPOs because the definitions of museums coincide with the definitions of NPO in general. For example, International Council of Museums defines "museum" as [21]:

"a nonprofit making, permanent institution, in the service of society and its development, and open to the public, which acquires, conserves, researches, communicates and exhibits, for the purposes of study, education and enjoyment, material evidence of man and his environment."

Similarly, the American Association of Museums defines museum as:

"a nonprofit permanent, established institution, not existing primarily for the purpose of conducting temporary exhibitions, exempt from federal and state income taxes, open to the public and administered in the public interest, for the purpose of conserving and preserving, studying, interpreting, assembling, and exhibiting to the public for its instruction and enjoyment objects and specimens of educational and cultural value, including artistic, scientific (whether animate or inanimate), historical and technological material."

Many researchers in the United States have studied the marketing related issues regarding the management of museums. For instance, Buhler [5], Munley[17], and Toscano[22] studied the patterns of fund raising patterns of museums; Bryant[4] revealed principles of museum marketing; Ames[2], Ambrose and Runyard[1], and Kavanagh[11]discussed missions and corresponding marketing strategies of museums. Yet, the importance of museum marketing in Taiwan has not been mentioned until 1991[6]. In addition, the first and the only graduate institution of museology at the Taiwan National College of Arts has not been established until 1996. At the stage of so-called brand competition in the development of NPOs [18], museums in Taiwan, are facing the brand competition and are getting to appreciate the marketing approach. However, only limited research[10] has been conducted so far.

The most important work of developing marketing plans for a museum is to clarify functions of the museum. In 1970, Noble, the president of New York Museum, first claimed five functions of museum as acquisition, conservation, research, interpretation, and exhibition[20]. The performance evaluation for museums follows these five functions since then. With different consideration of these five

functions, various interest groups may have different needs from a museum and sometimes even reveal conflicting opinions on the management of the museum. To best accomplish the museum's missions, decision-makers (DMs) of the museum need to communicate with all interest groups. On the one hand, appropriate communication can make all interest groups aware the museum's functions and then possibly appreciate the arrangements in the museum. On the other hand, the museum may improve its services more precisely based on the needs of these groups.

Moreover, the global trend of the development of museums emphasizes not only on product/service marketing plans but also on their interactions with communities. A broader definition of museum marketing approach even covers issues like the community relationship as well.

In order to put later discussions in perspective, the following section addresses a brief description of NSTM for the purpose of providing a minimal background.

3. A Background of NSTM

NSTM, with number of 165 employees and the gross annual budget more than 700 million NT dollars, is the second biggest museum in Taiwan. It has been established since 1997 and located at Kaohsiung Metropolitan, an industrial center of large-scale heavy industries. The spirit of NSTM emphasizes the interrelation between science and humanity; and its primary mission is to popularize education of science. The key function of NSTM is to research, design, and exhibit technological subjects, introduce fundamental theories of modern technologies, and explain how these technologies affect human lives. Besides, NSTM conserves many domestic technological inventions and records the history and achievements of Taiwanese technological development. Currently, the museum has 18 topic exhibitions, a 3D movie theater, a multimedia theater, and a science education center[9].

4. Methodology

Based on the principles of the Social Judgment Theory [8], we conducted a mailed survey to examine and compare function preferences and marketing-mix preferences of different interest groups domestically. The survey questionnaire was developed by the amalgamation of relevant literature and by the use of focus groups and in-depth interviews with executives of NSTM. Four major organizations functions (goal setting in SJT terms) of NSTM, i.e., conservation, research, educational exhibition, and leisure, were identified and included in the SJT questionnaire. Our samples cover four kinds of interest groups: (1) employees of the NSTM; (2) experts in the southern Taiwan who have been studying in the museum related field; (3) community leaders, such as senators or congressmen in Kaohsiung; and (4) mess media workers: such as journalists, editors and so on. The questionnaire was reviewed by a top manager of NSTM, and a colleague who is an expert in marketing research, and pre-test on several local administrators to ensure its content validity and to verify the clarity of the questions. Internal consistency analysis of the questionnaire responses was established through the Cronbach α technique. The average α value 0.86 of the study indicates an acceptable level of reliability of the scales.

5. Results and Discussions

204 questionnaires were delivered to the four selected interest groups. We overall received 86 survey results. Total response rate of the mail survey was 42.2% based on valid responses; or 20 NSTM

employees, 24 experts, 22 community leaders, and 20 mass media workers (see Table 1). Of these respondents, 65.1% (n = 56) are males, and 34.9% (n = 30) are females.

Table 1 Survey respondents

Surveyed subjects	No. of samples	No. of valid samples	Response rate (%)
NSTM employees	37	20	54.0
Experts	65	24	36.9
Community leader	50	22	25.6
Mass media workers	52	20	38.5
Total	204	86	42.2

Table 2 shows the different function preferences (goal settings) of NSTM of these four interest groups. Among these 86 subjects, "leisure (35.96)" accounts for the most important function (goal) of NSTM. "Conservation (24.61)" follows it. A possible reason for this result is that Kaohsiung citizens are desperate for space for leisure activities since there is in general limited space and facilities for them. In addition, table 2 also shows that museum employees consider education exhibition as the most important goal of NSTM, while the others emphasize the goal of "leisure" most. The reason could be that the role of museum employees is more like the "supply" of museum product/services, but the others are more like the "demand" of the museum product/services. Thus, it may require the DMs of NSTM to find a balance between the missions of "leisure" and "education."

Table 2 Weight of organization goal setting judgment

	Conservation	Research	Education exhibition	Leisure
Museum Employees	22.55	12.75	32.40	32.25
Experts	26.46	16.58	20.42	36.08
Community leaders	22.46	16.84	23.05	37.55
Mass media workers	27.00	17.30	17.80	37.95
Average	24.61	15.87	23.42	35.96
F test (P Value)	0.779 (0.509)	0.806(0.494)	4.947(0.003**)	0.482(0.696)

^{** (}P<0.01)

Table 3 shows the current situation of the NSTM's budget allocation on these four functions It indicates that NSTM's budget coincides with SJT's test results to NSTM's employee. Education exhibition get the highest weight, 70.18 percentage. Leisure get second weight, 24.29 percentage. Conservation & Research get the lowest weight, 5.53 percentage. Therefore, Education exhibition is the most important part and Conservation & Research is the less important part at NSTM.

Table 3 the current situation of the NSTM's budget allocation on these four functions

	Conservation	%	Education	%	Leisure	%	Total
	& Research		exhibition				
1997/7/1-1998/6/31	3,262	4.68	58,526	84.05	7,839	11.26	69,627
1998/7/1-1999/6/31	2,622	1.78	106,093	71.64	39,386	26.59	148,101
1999/7/1-2000/12/31	21,492	7.75	182,858	65.92	73,061	26.37	277,411
Total	27,376	5.53	347,477	70.18	120,286	24.29	495,139

ps: NSTM has been established since 1997

Table 4 shows that product strategy (30.74) is the primary factor in optimal marketing mix, and promotion (28.85) is the secondary. Product strategy is the basic requirement in the marketing mix, and promotion or channel strategy is useless without adequate product strategy.

Among four groups, community leaders weight promotion higher than product strategy. The reason could be that the NSTM doesn't have good communication with the community. The other reason could be that the museum is still in the establishing stage, and the information about the museum is insufficient. Therefore, the community leaders are not satisfied by the available information about the museum.

Table 4 Weight of optimum marketing mix judgment

	Product	Price	Promotion	Place
Museum Employees	32.15	21.35	26.95	19.50
Experts	34.00	19.83	27.54	18.79
Community leaders	26.46	19.96	31.64	21.91
Mass media workers	30.35	19.65	29.30	20.90
Average	30.74	20.20	29.30	20.90
F test (P Value)	1.105 (0.352)	0.091(0.964)	0.522(0.668)	0.439(0.728)

6. Conclusions

This research finds that different groups have different ideas about NSTM's goal setting. Generally, these four groups expect that "leisure" is the most important goal for NSTM, and "research" is the least important one. The survey results show that museum employees consider educational exhibition as the most important goal, while the others emphasize the goal of leisure most.

Based on the survey results and the global trend that a museum has to emphasize not only on the marketing strategies of its product/service but also on its interaction with the community, we propose marketing plans for NSTM. Important suggestions are as follows:

- 1. The National Science & Technology Museum needs to allocate more resources on services of leisure and educational exhibition.
- 2. The National Science & Technology Museum needs to execute the proposed marketing mix thoroughly. The marketing mix covers plans for exhibitions, admission fees, multi-media promotion and special events, design of corporate identity systems, recruitment of voluntary workers, etc.
- 3. The National Science & Technology Museum needs to conduct attendance survey regularly to improve the satisfactory level of its consumers.
- 4. The National Science & Technology Museum needs to provide regular marketing training for its employees and volunteers.

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