

# Assessing International Opportunities in Higher Education: A Matrix-based Assessment Tool

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## **I n t r o d u c t i o n**

The pressure on academic institutions to develop sustainable programs is felt both internally and externally. Owing to shrinking operating budgets, universities will only support programs that relate directly to their mission and that are financially viable. External expectations come from funding agencies that typically require institutions to be able to sustain their programs within and often beyond a designated period.

Therefore, we believe that this is the best of times for education abroad professionals to learn some lessons from the business world. Faced with a growing number of international opportunities, the Lienhard School of Nursing at Pace University adapted a business model to assess which opportunities to pursue. Employing a product portfolio matrix approach, the International Opportunities Assessment (IOA) Tool was developed to assess new international ventures using the parameters of Market Attractiveness and Institutional Resources. The tool was piloted on a study abroad nursing course featuring a trip to Iceland. The tool assisted in prioritizing program development for international opportunities.

In the first author's experience as a banker for multinational corporations, she has observed similarities in the international strategies in a wide variety of industries. These strategies invariably incorporate a two-step approach. The first step, whether in publishing, electronics, or pharmaceuticals, is always identifying a well-defined "product" adapted to "customer demand."

What is our product in academia? In our case, Health Care Educational Programs, ranging from continuing education seminars to doctoral programs, including existing programs and those specifically designed as a response to customer demand. What is our customer demand? While our primary customer is the student, we also have to answer to a variety of stakeholders including funding agencies, institutional and individual research partners, and the community

at large. The specifics of customer demand vary with the institutions involved and with the individual participants' level of education and country of origin. For instance, at the Lienhard School of Nursing (LSN) at Pace University, our customer demand has encompassed Pace students seeking international field study experiences, foreign students looking for exchange programs, universities in search of post-doctoral research supervision, others interested in sending baccalaureate nurses for their master's degree, and yet others who desire a custom-made "train the trainer" continuing education program for their faculty. Spending time to understand the customer demand is most essential. Often, it is during this first stage in exploring an international exchange that cultural differences may become apparent.

The second step in international corporate strategies is to conduct a systematic "market analysis," which allows companies to assess new business ventures using a product portfolio approach and a step-by-step development model. Multinational corporations and global financial institutions tend to approach markets in a very analytical way. Initially, they study opportunities for their industry in a particular market followed by a survey of country risk, which involves political and economic factors including competition, investment requirements and financial return. The latter is typically based on a 5-year business plan that takes into account a number of variables, such as revenue growth, interest rates, currency exchange, and tax rates.

How do not-for-profit organizations, particularly higher education institutions, including those in health care professions, compare with corporations?

- We are "nonprofit" organizations, but our international strategy must be "profitable" in order to be sustainable;
- It is often difficult to secure the initial investment; that is, there is a lack of "seed money;"
- Different tuition structures among international programs create additional funding gaps in student-exchange programs;
- There is a wide variety of licensing requirements in the health care professions around the world.

Given these unique characteristics, is a business model relevant to academic institutions? We believe the answer is yes. One might argue that with our limited resources, a business model is even more appropriate. Using a product portfolio approach is one way to maximize these resources. This premise led to our development of a model assessment tool that can be used for assessing, selecting

and designing international opportunities. The International Opportunity Assessment (IOA) Tool measures the strategic fit of an international opportunity based on market attractiveness and institutional resources. We will describe the development of this tool and, in order to demonstrate its use, we will provide an example of its application in the assessment of a study abroad course for nursing students at the Lienhard School of Nursing, Pace University.

## **Literature Review**

Prior to development of the IOA Tool, we conducted a review of the literature to determine the existence of similar methods for assessing international opportunities in academic institutions. References support the value of international experiences for students of various disciplines (Committee on Education and the Workforce, 2000; Cummings, 2001; Koskinen & Tossavainen, 2004; Schertzer, Schuster & Zimmerman, 1993; Tabi & Mukherjee, 2003). Although there is validation of the need for careful planning of international activities within the existing university structure (Iammarino & O'Rourke, 1999), the challenge of balancing internationalization efforts with other pressures facing universities (Altbach & Teichler, 2001), and the importance of matching international initiatives to the institution's strategic plan (McBurnie, 2000; Richard, 1997), no systematic procedure or tool for assessing international opportunities is found in the literature.

## **Background**

Similar to many institutions, the Lienhard School of Nursing (LSN) at Pace University is presented with numerous opportunities for the development of international programs. Given the international thrust of the University Strategic Plan and the ambitious international agenda of LSN (Shortridge-Baggett, Ekstrom, & Kaufman, 2003), the School had a tendency to feel obligated to pursue every single international opportunity. Quickly, and in spite of a growing infrastructure dedicated to international affairs, the need for a more selective approach became evident. Indeed, simply conducting the due diligence (i.e., checking the background of institutions and individuals involved) to decide whether or not to pursue a specific opportunity can consume valuable resources. Hence we had the idea of developing an assessment tool to screen international opportunities in a manner similar to businesses evaluating a new or existing product given their product portfolio strategy.

One way to maximize our limited resources is to use a product portfolio approach. The concept of product portfolio matrix was originally developed in

the 1970's by a management consulting firm, the Boston Consulting Group (BCG), which suggested that businesses be managed as a portfolio in the way that financial investments are managed. The BCG Matrix classified a corporation's business units according to market growth and market share. The General Electric Company (GE) developed with the consulting firm McKinsey & Company a more flexible, multidimensional matrix, the GE Business Screen, to expand on the original portfolio approach using two factors: business strength and industry attractiveness (Shewer and Hiam, 1998, pp. 37-45).

Adapting the concept of product portfolio matrix to academic institutions in health care professions, we proposed to use two sets of parameters to assess new international ventures: Market Attractiveness and Institutional Resources (Kaufman, 2003). Market attractiveness can be defined by the institution's prior relationships with this market, the level of education in the health care professions in the countries involved, the appropriate language proficiency, and the immigration factor. The "immigration factor" rating will help the institution to focus on opportunities that do not require visas or countries for which visas are relatively easy to obtain. The institutional resources include the institution's ability to develop and sell the "product" being considered, the interest and availability of faculty, students, staff and alumni to participate in the new venture, financial resources, dedicated infrastructure, and strategic fit with the vision and mission of the institution.

As illustrated here, we can use this product portfolio matrix to decide which international services to maintain and which new opportunities to pursue. The focus should be on services that combine a high level of market attractiveness with a high level of institution's resources (Figure 1, upper left box). Services for which the institution has a high level of resources, yet represent a low level of market attractiveness (Figure 1, lower left box) should be maintained only if they do

**Figure 1. Product Portfolio Matrix**

		<i>high</i>	<i>low</i>
<b>MARKET ATTRACTIVENESS</b>	<i>high</i>	PURSUE OPPORTUNITY (Invest/Grow)	PURSUE SELECTIVELY (Enhance Resources)
	<i>low</i>	PURSUE SELECTIVELY (Do Not Invest Additional Resources)	DO NOT PURSUE

not require additional resources. Often in this category (Figure 1 — lower left box) are “older” programs. The challenge is to convert them into “cash cows,” to use marketing terminology, so that they can provide seed funding for those programs which represent a high level of market attractiveness but a low level of institutional resources (Figure 1, upper right box). Opportunities that combine low market attractiveness with low institutional resources should not be pursued. This will ensure that the institution’s limited resources are spent to attain its strategic goals.

## **Description of the IOA Tool**

In an attempt to minimize the time needed to screen international opportunities, we decided to use a two-step process, with a preliminary questionnaire followed by an in-depth questionnaire. We also developed a summary checklist to track progress through the assessment process. These three documents comprise the IOA Tool. The checklist gives a brief summary of the opportunity, identifies the participants, timetable, and next steps (see Appendix A). The first questionnaire consists of four questions assessing strategic fit with the institution’s overall goals, interest and availability from LSN participants (faculty, students, staff and alumni), and self-sufficiency (see Appendix B). The reader is prompted to answer using a one to five scale. Opportunities that receive a score below 3 for the Strategic Fit question or a total score below 12 (out of a possible 20) should not be pursued at this time. If some of the questions are not answered, further information will be required. Opportunities that receive a score of 12 or above should be further assessed using the second tool, which provides a more in-depth assessment of the opportunity under consideration.

The second questionnaire consists of six questions assessing Market Attractiveness, and thirteen questions addressing Institutional Resources (see Appendix C). In order to assess Market Attractiveness, the reader is prompted to answer questions about travel requirements of participants, that is, to the US, abroad, or both ways; existence of a prior relationship at the school or University level; level of nursing education and practice in the partner country; language proficiency of the participants given the opportunity; and immigration factors. The section on Institutional Resources attempts to rate the ability of the School and the University to sell the product/opportunity under consideration; the interest and availability of faculty, staff, students and alumni to participate in this opportunity; and the financial resources needed from the institution and from the participants. This section also attempts to quantify the human resources involved in developing the opportunity under consideration and the

use of dedicated space (e.g., classroom, office, and housing). Responses in each section are assigned values according to an “answer key,” with a possible point value of 5 for each item. For each unanswered question, 5 points are subtracted from the total possible score of 75. International opportunities receiving 75% of the possible score are considered appropriate for further pursuit by LSN.

In summary, this approach is adapted from what multinational corporations and global financial institutions have been using for decades in a wide variety of industries. Once they have identified a well-defined product adapted to customer demand, they will conduct a systematic market analysis, which allows them to assess new and existing business ventures using a portfolio approach and a step-by-step development model. The IOA Tool is essentially an adaptation of the market analysis and portfolio management approach.

### **Piloting the IOA Tool**

We decided to test our assessment tool with an international field study course for both graduate and undergraduate nursing students traveling to Iceland. This nursing elective, “Cross-Cultural Study and Comparative Analysis of Health Care Delivery Systems: Iceland,” has been offered annually since 2000 (Ekstrom, Sigurdsson & Gordon, 2001). The major aim of this course is to allow participants to compare and contrast systems of nursing and health care in the USA and a host country, within a framework of primary health care. There are five preparatory seminars followed by a ten-day international field study experience. Iceland was chosen because of an ongoing relationship with the University of Iceland and because it offers an excellent example of a health care system built around the principles of Primary Health Care. During the travel portion of the course, students participate in cultural events in the host country and observe health care through visits to areas such as primary health care centers, geriatric and acute care hospitals, rehabilitation centers, and a dermatology clinic. For the past three years, a highlight of the trip has been a “one-on-one lived experience” for each participant working with an Icelandic nurse.

This course has facilitated interaction among teaching, research, and service (Kahn, et al., 2005). Faculty members draw on insights gained from the experience in teaching other graduate and undergraduate courses. Similarly, students who have participated often refer to experiences gained abroad in their discussions in other courses. They often comment that the experience has given them a new perspective on the US health care system and, as evolving nursing practitioners and leaders, ideas for changing the system. LSN faculty members have consulted

with Icelandic faculty on various curriculum issues, and one LSN faculty member taught physical assessment in a newly-developed clinical specialty diploma program in Iceland. Ongoing data collection via post-trip surveys and journals has promoted faculty scholarship through presentations at international conferences and the development of manuscripts for publication.

As we considered continuing to offer the Study Abroad Course to Iceland in the spring of 2005, we pilot tested this opportunity with the IOA Tool. Assessment with the IOA Tool I resulted in a total score of 16 out of a possible 20. The first question, assessing strategic fit, received a score of 5, since the Study Abroad Course to Iceland has been specifically identified as one of the international strategies in the LSN Strategic Plan. The second question, on participants' interest, received a score of 4, and was explained by the fact that faculty are identified and interested but effective recruitment efforts will be needed to enroll a sufficient number of students. The third question, on participants' availability, received a score of 4 as faculty members have been identified and available but the availability of other participants (students, staff, alumni) is not certain. The fourth and final question of IOA Tool I, on self-sufficiency, received a score of 3, reflecting the fact that a balanced budget has been prepared, but substantial profits were not expected.

Given the results of IOA Tool I (score of 5 for strategic fit and total score of 16), we proceeded to IOA Tool II. The questions on market attractiveness received the maximum score except for the two questions related to travel requirements (MA1) and immigration factor (MA6), which both received a score of 3 since the opportunity requires Pace faculty/staff/students/alumni to go abroad for a 10-day visit to Iceland. Questions assessing Institutional Resources also received high scores with the exception of participants' financial resources needed (3) and dedicated infrastructure (3). These scores were justified by the fact that the cost of the trip can represent a financial barrier to some students and scholarship assistance, while available, is limited. In terms of infrastructure, it is estimated that 100 to 150 hours of staff time will be needed to pursue this opportunity. The total score for IOA Tool II was 64 out of 75, or 85%. The Study Abroad Course for nursing students traveling to Iceland passed the test, and based on this result, we decided to continue offering this course.

## **Conclusion and Recommendations**

Most academic institutions are approached with a variety of international opportunities that do not necessarily fit their mission and strategic plan. Conducting the due diligence on these opportunities can be costly in time and

**Sophie R. Kaufman, David N. Ekstrom,  
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personnel resources. The International Opportunity Assessment Tool presented in this article allows the user to assess quickly whether resources should be spent on pursuing a specific opportunity.

Now that the tool has been tested by the authors, we would like to see a more systematic use of the tool within the Lienhard School of Nursing and throughout Pace University to maximize the impact of the international activities that the University chooses to undertake. We anticipate that faculty, staff and administrators at other institutions will find it useful and adapt it to their particular circumstances.

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**Sophie R. Kaufman, David N. Ekstrom,  
and Lillie M. Shortridge-Baggett**

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**Appendix B**

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**INTERNATIONAL OPPORTUNITY ASSESSMENT (IOA) TOOL I**

**Purpose:** The following four questions are designed to be used as a “first step” assessment tool to be completed by anyone interested in pursuing, or approached with, an international opportunity. The tool focuses on four key criteria: strategic fit, LSN participants’ interest, availability of LSN participants, and self-sufficiency of the proposed opportunity.

**Directions:** Think strategically. Please critically assess the opportunity that you are considering by answering the following four questions using the 1–5 scale. If you do not know the answer or are unsure, please contact the CNRPCIA Office for assistance.

Opportunity Title:

1. **Strategic Fit:** How does the opportunity under consideration fit within the LSN Strategic Plan and the Pace University Second Century Strategic Plan?

one of the identified  
strategies in the  
LSN Strategic Plan

good fit with  
Pace University  
Strategic Plan

5

4

3

2

1

Please explain:

2. **Participants’ Interest:** How would you rate the interest of LSN faculty/staff/students/alumni to participate in this opportunity?

identified and  
interested in this  
opportunity

5

4

some  
interest

3

2

1

Please explain:

3. **Participants' Availability:** How would you rate the availability of LSN faculty/staff/students/ alumni to participate in this opportunity?

unlikely to be available available for this opportunity	1	2	3	4	5
			some interest		identified and available for this opportunity

Please explain:

4. **Self-Sufficiency:** To what degree is this opportunity self-sufficient?

funding (external or internal) will be required, has not been identified	1	2	3	4	5
			internal and external funding has been identified, will cover all costs		substantial profits expected to generated

Please explain:

Total Score: \_\_\_\_\_ (Maximum: 20) If your total score is 12 or more and if your response to question 1 is 3 or higher, please proceed to the International Opportunity Assessment (IOA) Tool II, which provides a more in-depth assessment of the opportunity under consideration. If your total score is below 12 and you did not answer one question or more, please contact the CNRCPIA.

**Appendix C**

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**INTERNATIONAL OPPORTUNITY ASSESSMENT (IOA) TOOL II**

**Purpose:** This questionnaire was designed to be used as a detailed assessment tool by anyone interested in pursuing, or approached with, an international opportunity. This questionnaire should be used only after scoring a minimum of 3 to the first question of the IOA Tool I, and a minimum of 12 as a total score on the IOA Tool I. The following questions are meant to assess the market attractiveness of the international opportunity under consideration as well as the institutional resources involved in pursuing such opportunity.

**Directions:** Please critically assess the opportunity that you are considering by answering all the following questions and calculate your total score using the Scoring Key on page 5. If you do not know the answer or are unsure, please contact the CNRPCIA Office for assistance

Opportunity Title:

**Market Attractiveness**

**MA1.** Will the opportunity under consideration require (a) foreign nationals to come to the U.S., (b) Pace faculty/staff/students/alumni to go abroad, or (c) both?

(a) \_\_\_\_\_ (b) \_\_\_\_\_ (c) \_\_\_\_\_

Please explain:

**MA2.** Does LSN have a prior relationship with this market?

Yes \_\_\_\_\_ No \_\_\_\_\_

If yes, please describe:

**MA3.** Does Pace University have a prior relationship with this market?

Yes  No

If yes, please describe:

**MA4.** Is the level of nursing education and practice in the partner country appropriate given the opportunity under consideration?

Yes  No

Please explain:

**MA5.** Is the language proficiency of the individuals involved sufficient for this opportunity?

Yes  No

Please explain:

**MA6.** Immigration Factor:

(a) the opportunity under consideration will be conducted via internet and/or video-conference (no travel involved)

(b) there is no visa requirement for the opportunity under consideration

(c) the immigration requirements are not expected to be a barrier as long as sufficient time is allowed for processing

(d) the immigration requirements could prevent this opportunity to be developed

Please explain:

**Institutional Resources**

**IR1.** How would you rate LSN's ability to develop and sell the "product"/opportunity under consideration?

Low					High
1	2	3	4	5	

Please explain:

**IR2.** How would you rate Pace University's ability to develop and sell the "product"/ opportunity under consideration?

Low					High
1	2	3	4	5	

Please explain

**IR3.** How would you rate the interest of students/faculty/staff/alumni to participate in this opportunity?

Low					High
1	2	3	4	5	

Please explain

**IR4.** How would you rate the availability of students/faculty/staff/alumni to participate in this opportunity?

Low					High
1	2	3	4	5	

Please explain:

**IR5.** Institution's Financial Resources Needed: Will this opportunity (a) be self-sufficient (e.g., all costs will be covered by program revenues and gifts), (b) generate a profit, or (c) require funding from LSN/Pace or external sources?  
 (a) \_\_\_\_\_ (b) \_\_\_\_\_ (c) \_\_\_\_\_

If (a) or (b), please explain, then skip to IR7:

**IR6.** If you answered (c) to question IR5, what is your assessment of the funding availability?

funding sources have not been identified possible funding sources have been considered, but no commitment obtained  
 internal or external funding sources identified and readily available

1 2 3 4 5

Please describe

**IR7.** Participants' Financial Resources Needed: Will the opportunity under consideration require personal financial outlay from the participants?

Yes \_\_\_\_\_ No \_\_\_\_\_

If Yes, please explain and proceed to IR8, otherwise skip to IR9:

**IR8.** How would you rate the financial ability of participants to pursue this opportunity (through personal funding as well as University and external scholarships)?

Low Medium High  
 1 2 3 4 5

Please explain

IR9. Dedicated Infrastructure/Personnel: Estimate the total number of CNRCPIA administrative hours required to pursue this opportunity:  
 Under 50 hours \_\_\_\_ 100 to 150 hours \_\_\_\_ Over 150 hours \_\_\_\_

IR10. Do you anticipate other individuals at LSN (e.g., faculty, administrative and secretarial staff) to spend time on this opportunity?  
 Yes \_\_\_\_ No \_\_\_\_  
 If Yes, please explain and proceed to IR11, otherwise, skip to IR12:

IR11. Estimate the total number of hours that other individuals at LSN are expected to work in order to pursue this opportunity:  
 Under 50 hours \_\_\_\_ 100 to 150 hours \_\_\_\_ Over 150 hours \_\_\_\_

IR12. Dedicated Infrastructure/Facilities: Does the opportunity under consideration require dedicated space (e.g., classroom, office, housing)?  
 Yes \_\_\_\_ No \_\_\_\_  
 Please describe:

IR13. If you answered yes to question R12, how would you rate the availability of the dedicated space required to pursue this opportunity (for example, low if opportunity requires housing for one year; high if opportunity requires only use of a classroom twice a semester)?  
 Low Medium High  
 1 2 3 4 5

Please explain:

**Scoring Key**

**Market Attractiveness:**

MA1. (a) = 1; (b) = 3; (c) = 5; MA2. Yes = 5; No = 1; MA3. Yes = 5; No = 1; MA4. Yes = 5; No = 1;

MA5. Yes = 5; No = 1; MA6. (a) = 5; (b) = 4; (c) = 3; (d) = 1;

**Institutional Resources:**

For questions IR1, IR2, IR3, IR4, IR6, IR8, and IR13, use number from 1-5 (or 0-5) scale corresponding to answer.

IR5. (a) = 3; (b) = 5; (c) = 0;

For questions IR7, IR10 and IR12: Yes = 0; No = 5;

For questions IR9 and IR11: Under 50 hours = 5; 100 to 150 hours = 3; Over 150 hours = 1

Add up the number of points corresponding to your answers. If you have answered every question, the maximum score is 75. For each unanswered question, subtract 5 from the maximum possible score of 75.

Total: \_\_\_\_\_ (Maximum Score: \_\_\_\_\_)

