

# Executive Summary

## Introduction

Cranium Inc. is the creator of unique board games that go beyond the traditional norms of winner-take-all competition. Created in 1998 by former Microsoft Encarta Encyclopedia developers Richard Tait and Whit Alexander, Cranium makes board games that reflect the company's core philosophy of creating moments in which people can share memorable and fun experiences. The company philosophy is summed up in the acronym CHIFF, which stands for "Clever, High quality, Innovative, Friendly, and Fun." CHIFF is the spirit of the company, and this spirit drives Cranium's business decisions.<sup>1</sup> With the desire to truly make this ideology more than just a slogan, Tait and Alexander are also pursuing the creation of a Cranium lifestyle brand centered around CHIFF; in the future, this brand will include T.V. programming, book and magazine publishing, activity toys, and other categories.

*The  
Cranium Corporate  
Philosophy.*

CLEVER  
HIGH QUALITY  
INNOVATIVE  
FRIENDLY  
FUN

## Products

Cranium has pursued a branded house strategy applying their overarching Cranium brand to a repertoire of twelve different games aimed at different age categories from preschool to adult. The games include the self-titled Cranium, Hoopla, Cadoo, Cariboo, Conga, Hullabaloo, Zigity, Ballon Lagoon, and Cranium Turbo Edition. Cranium, the game, was the company's first brainchild and has been the company's flagship product for entering foreign markets. There are presently thirteen different versions of Cranium translated and localized into nine different languages on the market worldwide.<sup>2</sup>





## Measures of Success

Cranium has been successful with its focus on high-quality, innovative, and fun games. Cranium has become the first company in history to win “Game of the Year” three years in a row. This honor is awarded by the Toy Industry of America.<sup>3</sup> Moreover, Cranium has won over 25 International game awards in multiple countries. Today, there are 30 million “Craniacs” around the globe, and Cranium branded games are distributed in 22 different countries. In 2003, the company posted revenues of \$53 million and shipped its 7 millionth game.<sup>4</sup> Cranium is currently a privately held company.

## The Board Game Industry Overview

Cranium operates within the board game industry—a subset of the larger toy and game industry. There are two dominant players in the industry: Mattel and Hasbro. J.P. Morgan estimates that U.S. board game sales totaled approximately \$875 million in 2003.<sup>5</sup> Mattel and Hasbro had a combined market share of 77 percent (12 percent and 65 percent, respectively).<sup>6</sup> The industry is also dominated at the retail level by the mass merchandisers. In particular, the mega-discounters Wal-Mart, Target and Toys R Us are estimated to account for 46 percent of toy sales in 2003 (a broader category which includes games).<sup>7</sup>

## Project Objective and Scope:

The Cranium International Business Plan Team has developed a rigorous empirical instrument for Cranium to help identify and prioritize profitable international market opportunities for the company’s game products with a three to five year time horizon. The crux of the project included creating a model to help Cranium make new market decisions based on an analysis of existing key markets and sales drivers. The new market analysis model consists of the following five stages:

*Develop a  
rigorous, empirical  
instrument*

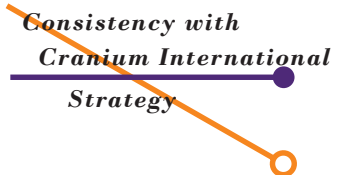
- Country filtering
- Unit sales forecasting
- Cultural and distributor index forecast adjustments
- Financial projections based on NPV calculations
- Ranking opportunities for new market expansion

Following application of the model, recommendations are provided for the three most attractive markets, according to predicted NPV.

The following boundaries were established for the scope of the project:

- **Time Frame.** Our analysis focused on new market opportunities for Cranium on a 3 to 5 year time horizon.
- **Market Targets.** So as not to overlap with Cranium's current international expansion plans, our market analysis did not include countries that Cranium is currently considering for market entry. The countries excluded from explicit analysis are Spanish-speaking Latin America, Brazil and Japan, although the model has been tested on some of these countries.
- **Product Focus.** Our new market analysis considered the board game Cranium as the base for all our forecasts and financial analysis. We maintained consistency with Cranium's current strategy of entering into new markets with its flagship game first and then diversifying with other products once there is a footing in the market. However, this approach does not exclude consideration of entering certain markets with an alternative product mix.
- **Entry Method.** A primary assumption for our analysis of new market attractiveness was continued use of Cranium's distribution partner entry model. However, our NPV calculations do take into account the other modes of entry available to Cranium: owned-and-operated and licensing.

*Consistency with  
Cranium International  
Strategy*



## The Five-Phase New Market Analysis Model

The model is best conceived as a multiphase filter that gradually reduces the number of countries under consideration by successively passing them through several stages.

*Think of  
a five-stage  
filter*

- 1) General Filter
- 2) Forecast Model
- 3) Readjustment
- 4) Financial measurement
- 5) Ranking

- The first stage is a general filter used to limit our initial examination to a reasonable number of countries.
- The second stage is perhaps the most involved, as it consists of two distinct models for predicting Cranium unit sales in the countries that have successfully passed through the first filter.
- This stage is followed by what we have termed “forecast readjustment”; in this third stage we provide two mechanisms for adjusting the initial forecasts according to cultural characteristics and quality of distribution partner.
- The fourth stage reinterprets our unit forecast predictions into investment return forecasts. We have accounted for various scenarios, in order to evaluate potential markets according to financial measures.
- Finally, the fifth stage of the model provides a ranking of the market options available to Cranium.

### Phase 1: The General Filter

Irrespective of the country under consideration, of greatest interest to us is the attractiveness of the market as measured by the addressable market. Using the Emerging Market Potential Index, a list of attractive emerging markets developed by Michigan State University, we narrowed the general list of some 190 countries down to the 24 most attractive emerging economies worldwide. This index evaluates the emerging markets according to eight sub-indices: market size; market growth rate; market intensity; market consumption capacity; commercial infrastructure; economic freedom; market receptivity; and country risk. All of these sub-

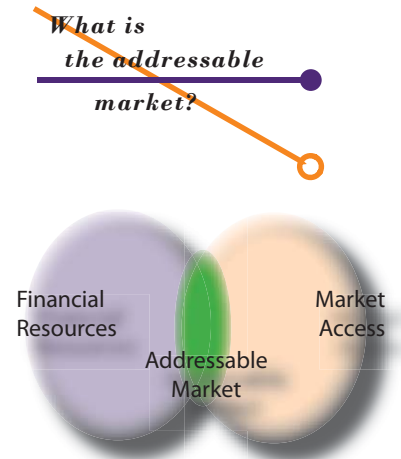
indices provide a complementary picture of market attractiveness across countries. To this list we have added other countries that we deemed potentially attractive or that the Cranium International Marketing team requested specifically: Taiwan, Japan, Greece, Croatia, Portugal and Iceland.

## Phase 2: Forecasting Models

The initial filtering tier reduced the number of countries to analyze to 30. The analysis of these potential markets for Cranium involved employing multiple forecasting methods to take into account those factors that one forecasting method in isolation cannot. The first forecasting method involves carefully defining the addressable market in each country and predicting sales based on likely first-year sell-in within that market. The second method applies statistical analysis to reveal relationships between Cranium unit sales and various country specific factors identified by the team as potential sales drivers.

- The Addressable Market Approach

In this approach, we look at first defining the size of the addressable market in the different emerging economies determined by our first-phase filter. The addressable market is the potential market that has the financial resources and access to retail outlets to purchase the product. While the latter statistic can be easily identified as the urban population, with the assumption that cities provide adequate retailing opportunities, the former proves harder to isolate and quantify. Therefore, we carefully analyzed various data sources to define a reasonable income level which would provide the financial resources and inclination to purchase Cranium. We then calculated the estimated size of that population group for each country to determine the addressable market. Estimating a reasonable sell-in rate for that addressable market, based on historical sell-in rates, permitted us to forecast unit sales according to the addressable market.





*What factors drive sales?*

- The Statistical Analysis Approach

This approach explored the relationships between historical Cranium entry-year unit sales and various sales driver factors derived by the team. Having identified these factors and determined their quantitative measures, we collected data for all of the international markets that Cranium is currently selling its products in. This data then allowed us to analyze the correlations between first-year unit sales and each factor. We limited the statistical analysis to first-year sales due to the lack of multi-year sales data in most foreign markets. A complete list of factors is available in Appendix E-1.

Upon identifying these highly correlated variables, we ran linear regressions to generate forecasting equations for predicting unit sales. Plugging in the corresponding data for each country will result in the predicted Cranium unit sales for that market.

### Phase 3: Forecast adjustment

- Cultural Index

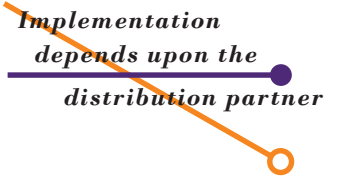
We created a cultural index that takes into account the cultural propensity of the markets we analyzed to buy a game like Cranium. The index adjusts the macro-factor forecast up or down depending on our general findings. Information on cultural factors was obtained by surveying the international student population of the Monterey Institute of International Studies. Both depth interview and online survey instruments were used. Factors found to be relevant were assigned a value for each country for which we had collected information. We also determined weights for the factors. The cultural index in countries for which we were unable to obtain information remained unadjusted. The index was then applied to the results of the forecasting model to adjust predicted first-year sales in a country (or region).

*What is the the cultural propensity to buy a game?*

- Distributor Partner Index

In analyzing partner performance, we asked members of Cranium's International Marketing team to rate the importance of several different partner criteria. We then asked them to rate each of their current partner's on these criteria. Using their responses and our own impressions, we developed a rating system for partners we were able to evaluate each of Cranium's current partners by this system. This rating system was then used to adjust forecasted units sales. However, due to the constraints of the project we neither found nor evaluated potential new distribution partners in our recommended markets. Nevertheless, the index can be used as a tool by Cranium when analyzing new partners in the future. Moreover, the index is designed to be flexible; the factors within the index can be adjusted by Cranium to account for different factors not represented in our index.

*Implementation  
depends upon the  
distribution partner*



#### Phase 4: Net Present Value Calculation

The NPV forecasting model was developed using the international financial information provided by Cranium Inc. This information included Cranium's partner pricing schedules, growth rate, current and forecasted pro-forma income statements detailing margins, costs of goods sold, and expenses for all entry models: owned-and-operated, licensing, and international distribution partnerships. The objective of the NPV model is to link adjusted unit sales forecasts to potential cash-flow streams using Cranium's existing revenue and cost structure. Our NPV figures are based on three year cash flow streams.

#### Phase 5: The Rankings

This stage rank orders the countries under analysis. The rankings are in order of highest predicted NPV to lowest predicted NPV.

## Key Project Findings:

Based on our new market analysis model, the following three countries emerged with the highest potential unit sales and NPV figures:

| Country     | First Year Predicted Unit Sales (Average) | Adjusted Unit Sales (Average) | NPV: IDP* (Medium variant) | NPV: Licensing (Medium variant) | NPV: Owned & Operated (Medium Variant) |
|-------------|---|-------------------------------|----------------------------|---------------------------------|--|
| China       | 68,295                                    | 58,392                        | \$1,739,858                | \$1,097,230                     | \$1,987,398                            |
| India       | 13,638                                    | 12,206                        | \$235,978                  | \$184,076                       | \$276,947                              |
| South Korea | 19454                                     | 17,752                        | \$416,576                  | \$293,734                       | \$482,352                              |

\* International Distribution Partner

## Country Recommendations

Country recommendations are organized in the following manner. First, we present each country's predicted unit sales and net present value figure according to each of the various forecasting methods. Next, we provide an overview of the opportunities available to Cranium in each country. Opportunities are followed by concerns specific to each country that require further validation.

### China

- Combined Forecast:

|                     | Weighted Average Regression-based Forecast | Modified Average Regression-based Forecast | Addressable Market Approach Middle Class Forecast | Addressable Market Approach Upper Class Forecast | Average of all forecasts |
|---------------------|--|--|---|--|--------------------------|
| Unit Sales          | 68,414                                     | 74,564                                     | 125,000   | 106,875  | 68,295                   |
| Adjusted Unit Sales | 58,494                                     | 63,753                                     | 5,200   | 4,446  | 58,392                   |
| Cultural Index      | 2.55                                       | 2.55                                       | 2.55  | 2.55   | 2.55                     |

|     | Market Entry Model | Pessimistic (\$) | Medium(\$) | Optimistic(\$) |
|-----|--------------------|------------------|------------|----------------|
| NPV | IDP                | (16,693)         | 1,739,858  | 3,318,534      |
| NPV | Licensing          | 30,654           | 1,097,230  | 2,055,800      |
| NPV | Owned and Operated | (10,430)         | 1,987,398  | 3,782,918      |

- Opportunities

1. Mainland China. Cranium should enter the Mainland Chinese market with a Chinese version of Cranium using a simplified writing system, localized to the Chinese market.

| Concerns for further validation   | Tactics for mitigating concerns  |
|---|--|
| <ol style="list-style-type: none"> <li>a. The board game market in China is still not well developed.</li> <li>b. The price point for Cranium may be too high.</li> </ol> | <ol style="list-style-type: none"> <li>a. Increase attention to marketing efforts to develop this market.</li> <li>b. If a lower price point cannot be set, consider entering with lower cost products like Zigity.</li> </ol> |

2. World Chinese. Cranium should create a “World Chinese” game using the traditional writing system. This product would find a market in traditional Chinese markets like Taiwan and Hong Kong, as well as within the Chinese diasporas in Southeast Asia and, for example, the United States..

| Concerns for further validation  | Tactics for mitigating concerns   |
|--|---|
| <ol style="list-style-type: none"> <li>a. It may be difficult to find the right balance between generic “World Chinese” content and the necessary level of cultural localization.</li> </ol> | <ol style="list-style-type: none"> <li>a. Develop World Chinese product with testing among consumers in various Southeast Asian markets.</li> </ol> |

3. The younger generation. Cranium should focus its marketing efforts on the younger generation of Chinese consumers, especially the up-and-coming urban professional segment (ages 15-35), which we have found to be highly receptive to “hip” Western products.
4. Card games. Card games are very popular, and their lower price point and ease of localization (even using World English since English education is so prevalent) make Cranium games like Zigity and Hoopla options for China.

## India

- Forecast

|                     | Weighted Average Regression-based Forecast | Modified Average Regression-based Forecast | Addressable Market Approach Middle Class Forecast | Addressable Market Approach Upper Class Forecast | Average of all forecasts |
|---------------------|--|--|---|--|--------------------------|
| Unit Sales          | 22,596                                     | 25,022                                     | 4638  | 2,295  | 13,638                   |
| Adjusted Unit Sales | 20,224                                     | 22,395                                     | 4,151   | 2054   | 12,206                   |
| Cultural Index      | 2.95                                       | 2.95                                       | 2.95  | 2.95   | 2.95                     |

|     | Market Entry Model | Pessimistic (\$) | Medium(\$) | Optimistic(\$) |
|-----|--------------------|------------------|------------|----------------|
| NPV | IDP                | (94,579)         | 235,978    | 567,738        |
| NPV | Licensing          | (16,638)         | 184,076    | 385,520        |
| NPV | Owned and Operated | (99,014)         | 276,947    | 654,277        |

- Opportunities

- Urban markets. Cranium should concentrate on India's seven largest cities, where population levels (combined population of 60 million) and income levels provide an attractive addressable market.

| Concerns for further validation                 | Tactics for mitigating concerns  |
|---|--|
| a. The price point for Cranium may be too high. | a. If a lower price point cannot be set, consider entering with lower cost products like Zigity. |

- Indian English Version. Cranium should enter India with English-language products. Where regional dialects fail, English is the lingua franca used to bridge the gap. Cranium products are likely to be attractive to this educated class, which tends to view English as the language of the refined and sophisticated in society.

| Concerns for further validation                          | Tactics for mitigating concerns   |
|--|---|
| a. A World English Cranium is not appropriate for India. | a. India has a vibrant and proud popular culture. An Indian English version of Cranium must take into consideration the important place Indian popular culture has in everyday life and localize its content accordingly. |

## South Korea

- Forecast:

|                     | Weighted Average Regression-based Forecast | Modified Average Regression-based Forecast | Addressable Market Approach Middle Class Forecast | Addressable Market Approach Upper Class Forecast | Average of all forecasts |
|---------------------|--|--|---|--|--------------------------|
| Unit Sales          | 15,228                                     | 16,293                                     | 25,904  | 20,393   | 19,454                   |
| Adjusted Unit Sales | 13,895                                     | 14,867                                     | 23,637  | 18,609   | 17,752                   |
| Cultural Index      | 3.125                                      | 3.125                                      | 3.125   | 3.125  | 3.125                    |

|     | Market Entry Model | Pessimistic (\$) | Medium(\$) | Optimistic(\$) |
|-----|--------------------|------------------|------------|----------------|
| NPV | IDP                | 290,996          | 416,576    | 608,205        |
| NPV | Licensing          | 217,482          | 293,734    | 410,091        |
| NPV | Owned and Operated | 339,522          | 482,352    | 700,303        |

- Opportunities

- Board game cafes as test markets.** Cranium should explore market testing in board game cafes, a rapidly growing phenomenon in South Korea. Popular board game cafes provide a good opportunity to gain market knowledge in efforts to localize Cranium products for the South Korean market.

2. Board game cafes as alternative channels. Cranium should consider using board game cafes as an alternative entry channel similar to the Starbucks channel the company used in the United States.

| Concerns for further validation  | Tactics for mitigating concerns  |
|--|--|
| a. While there seems to be a culture of board game playing in South Korea, this culture is not as well developed as the card game culture. | a. Investigate entering the South Korean market with Zigity or Hoopla. |

### Distribution Partner Recommendation

The key to successful expansion abroad depends on the quality of distribution partner, assuming that is the preferred mode of entry. To help structure the decision making process for their distributor partners, we recommend that Cranium use the mechanism that underlies the distributor index created for the forecasting model. The index is derived from a list of factors to consider when choosing a distribution partner in the future. This list can be modified and adapted as the management sees fit. The alternative hierarchy model used to develop the distributor index is a useful empirical instrument for evaluating multiple options according to a standardized set of criteria.

### Summary

The team has created a tool for Cranium to use for its future international expansion decisions. The new market analysis model was constructed with the idea that this was to be an application that Cranium could change and adapt to fit their new business strategies and market place realities. The team is confident that our model will provide an alternative to back of the envelope forecasting by providing a sophisticated and multilayered approach to analyzing new markets. The team hopes that this project will leave Cranium with some useful tools for its future international business expansion.

## Endnotes to Executive Summary

1. Julie Bick, “Inside the Smartest Little Company in America,” *Inc Magazine*. January 2002
2. “Country Intro and Culture PPT,” Internal Cranium Document: 2004
3. “Cranium Corporate Overview,” Internal Cranium Document: 2004
4. “Partner Engagement Deck PPT,” Internal Cranium Document: 2004.
5. J.P. Morgan Securities, Inc., *Toy Industry 101: 2004 Edition*, (New York, 2004), 57.
6. *Ibid.*, 8.
7. *Ibid.*, 13.

This page intentionally left blank.