Building spaghetti towers to learn the M&A process

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ABSTRACT

This activity will help students understand merger and acquisition (M&A) processes by using a traditional game: building spaghetti towers. Since students have limited access and exposure to business entities and how firms engage in strategic initiatives, such as M&As, it may be difficult for them to fully understand the complex processes of M&As. This activity allows students to walk through the basic steps of how executives in an acquiring firm conduct M&As in an engaging and fun way. Specifically, the exercise includes identifying a viable target company, conducting negotiation, due diligence, and managing post-acquisition integration.

Keywords: merger and acquisition, target selection, negotiation, due diligence, integration

INTRODUCTION

Mergers and acquisitions (M&As) are becoming an increasingly prevalent strategy in today's business world. This strategy is a common practice of large and small firms and more established and younger firms. According to data provided by the Institute for Mergers, Acquisition, and Alliances (2021), more than 790,000 deals have been announced worldwide since 2000, with a known value of over 57 trillion USD. However, research suggests that about 70% of the acquiring firms fail to achieve the projected outcomes to offset the hefty premium payment (Hitt et al., 2009). Given the prevalence and the high failure rate of these strategic actions, it is imperative for current and future managers (e.g., students in business schools) to understand how to navigate the complex processes of M&As and avoid some of the common pitfalls to successful mergers and acquisitions.

M&A PROCESS OVERVIEW

The process of M&A involves many activities that the acquiring firms must complete. These activities can be categorized into two phases: (1) the decision-making phase and (2) the integration phase (Haspeslagh & Jemison, 1991). In the decision-making phase, the acquiring firms usually consider multiple potential target firms, obtain target firms' information for negotiation and due diligence procedures, and assess their strategic fit and cultural fit (Muehlfeld, Rao Sahib, & Van Witteloostuijn, 2012). Once the acquisition deal is final, the acquiring firms need to complete strategic and administrative activities related to regulatory compliance, final negotiations, and preparations for integration (Clougherty, 2005; Haspeslagh & Jemison, 1991; Muehlfeld et al., 2012). During the integration phase, executives of both firms collaborate and make changes in "the functional activity arrangements, organizational structures and systems, and cultures of combining organizations to facilitate their consolidation into a functioning whole" (Pablo, 1994: 806). While, in theory, the integration phase should produce benefits, however, the actual performance outcomes vary widely. Prior research suggests that firms may not realize the projected results when organizational incompatibilities exist in areas such as management styles, reward, and evaluation systems, organizational structures, or organizational cultures (Datta, 1991).

Even though those acquisitions are complex and laborious processes, many factors motivate firms and managers to pursue acquisitions. For example, firms may use acquisitions as a method to maximize shareholder value (Haleblian et al., 2009) by increasing their market power (Kim & Singal, 1993) and efficiency (Banerjee & Eckard, 1998). Additionally, through acquisitions, firms can generate economies of scope by redeploying assets and transferring competencies (Capron, Dussauge, & Mitchell, 1998; Karim & Mitchell, 2000) and protect shareholders from poor management by disciplining ineffective managers (Agrawal & Walkling, 1994).

THE ACTIVITY

Many people may be familiar with the game: building spaghetti towers — use dry spaghetti strands and marshmallows to make towers. Traditionally, this activity (the Marshmallow Challenge) is a team-building exercise for students and coworkers; this current paper modifies it for a different purpose. The overall objective of the activity is to provide students a "hands-on" and a "mind-on" opportunity to navigate through a mock acquisition process to enhance students understanding of the M&A process. The following section will provide descriptions of how the activity proceeds.

Activity Preparation

First, the instructor places students in different groups with 2-3 students in each group. These groups represent various firms, which may or may not be in the same industry or region. For instance, the instructor can set the premise that these firms are in different countries or regions, allowing the instructor to create additional conversations with students regarding cross-border acquisitions. Consistent with the resource-dependent theory (Pfeffer & Salancik, 1978), these firms possess different types of resources; as a result, they are motivated to engage in acquisitions to minimize competition and manage the interdependence with other firms.

Second, the instructor will provide the groups/firms with different resources (e.g., dry spaghetti, marshmallows, tape, toothpicks, and string). For example, Firm A and B may be provided with spaghetti and toothpicks, Firm C with marshmallows only, and Firm D with tape and string. The rationale is that these firms do not have the adequate resources to build the towers independently. Thus, they are motivated to find a compatible firm with complementary resources to achieve the objective of tower-building. The instructor may evaluate the final product — tower in one or more of the following categories: height, sturdy, artistic design, etc.

Furthermore, the instructor needs to provide students with the unit value of each type of resource to perform the valuation of each firm. For the activity, each of the resources holds consistent values across firms. For example, below is a resource list with suggested dollar values for each item used, with values remaining consistent across all firms for each item.

Resources	Unit Value
One spaghetti stick	$1M
One small marshmallow	$0.5M
One large marshmallow	$1M
One toothpick	$0.5M
One yard of masking tape	$3M
One yard of string	$3M

Additionally, the instructor will provide students with a deck of "intelligence" cards containing information about each firm. The corporate intelligence or information on these cards can be beneficial and provides firms more leverage during negotiation. For instance, a student from Firm A can collect additional information about Firm C from a third party, such as customers or suppliers. The instructor can be the third party in the activity (See Appendix A for samples of the intelligence cards made with index cards).

Lastly, the instructor needs to provide firms with a payment card and a worksheet. The payment card is required and used when an acquiring firm is ready to sign the deal and make the payment. The card provides the acquiring firm three payment options: cash, stock, or a combination of both. Students in the acquiring firm can decide how they want to finance the acquisition deal. They need to indicate the percentages of the transaction value they wish to pay with cash and/or stock (e.g., 40% cash and 60% stock, or 100% cash). The worksheet helps students navigate the acquisition process and record important information that can help them make more informed decisions (See Appendix B).

Internal Analysis

During this step, students in each firm need to evaluate their resources within the firm. They can list the resources and their quantities and calculate the total assets based on the predetermined values of each type of resource using Sample Worksheet Part I for Internal Analysis. Also, based on the size of each firm's total assets, the instructor may inform the students that the size of their cash payment may not exceed a specified percentage of their total assets.

Target Selection

During this step, students can identify one or more potential target firms that have complementary resources. If there is more than one candidate, students need to narrow the list down to one viable target firm. Students are encouraged to consider multiple factors when selecting the right target firm, such as specific resources, potential synergy, and location advantages or disadvantages.

Negotiation

During the negotiation stage, students can approach the students of their target firm and discuss several issues related to the acquisition deal. The worksheet provides some suggested discussion points. For instance, what is the offer from the acquiring firm? Did the target firm receive multiple competitive biddings? If so, what is the counteroffer from the acquiring firm? What is the proposed method of payment? Will the acquiring firm retain all the executives of the target firm?

Due Diligence

Due diligence is when the acquiring firm needs to collect additional information about the target firm, especially from multiple stakeholders, such as customers, suppliers, distributors, etc. During this step, the instructor can act as the third party to provide students with important information about the firm of their interest. For example, a student from Firm A may approach the instructor and request information about Firm B; specifically, the student is interested in finding out how Firm B's customers perceive its products and service. In this case, the instructor will provide the student with the intelligence card for Firm B with the details collected from its customers. When the information is more optimistic, it can ensure the acquiring firm is making a good choice. However, when the data is unfavorable, it prompts the acquiring firm to exercise caution and provides more bargaining power during negotiation.

Post-acquisition Integration

Once the acquiring and the target firm students agree to a deal, they can begin the integration process. During this step, students need to consider how to combine operating systems, processes, and procedures of two organizations, create a unified and coherent organizational culture, and redeploy resources to create synergy. In addition, students can discuss issues and challenges they may encounter during integration, such as location advantages or disadvantages and differences in time zone, languages, legal systems, cultures, and communication styles. Students can use the worksheet as a guide to their discussion. Once they complete the conversation, they can start to build the towers. As previously stated, students can compete in several categories, such as height, sturdiness, artistic designs, etc.

DEBRIEFING AND DISCUSSION QUESTIONS

1. What are the definitions of a merger, acquisition, and takeover?
2. What are some incentives for firms to make acquisitions?
3. What part of the process do you think will have the most decisive influence on acquisition success or failure?
4. How would you increase employee morale following an acquisition?
5. What are some causes that can lead to acquisition failure?
6. What is your main takeaway from this activity?

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APPENDIX A

Sample Intelligence Card

Company: Firm A

Focus: Customers

Information: Customer survey suggests that Firm A has not fully explored the needs of its customers. Customers wish to have products with superior quality.

Company: Firm B

Focus: Suppliers

Information: Firm B has good and long-term relationships with its suppliers, which allows Firm B to obtain favorable deals with them.

Company: Firm C

Focus: Competitors

Information: Firm C has been more profitable than its competitors for the past two years. Most of the profits are made in the key parts of its value chain.

APPENDIX B

Sample Worksheet Part I for Internal Analysis

Resources	Quantity	Unit Value	Total Value
Total Assets			
______ % allowed as cash payment			

Sample Worksheet Part II for Acquisition Process

M&A Process	**Key Tasks**	**Results**
Target Screening and Selection	Which firms have the resources you need?	
	Which of these firms is your top choice?	
	Why?	
Negotiation	What is your firm's offer?	
	Is there competitive bidding?	
	What is your firm's final offer?	
	Management Retention	
	Payment method	
Due Diligence	What additional information did you obtain about the target firm?	
	What is the acquiring firm buying?	
	What is the actual value of the target firm?	
	Where are the potential synergies between the two organizations?	
	What is the acquiring firm's walk-away offer price?	

M&A Process	Key Tasks	Results
Integration	What are the changes to be made?	
	How to redeploy resources?	
	How to reconcile cultural differences?	
	How to reconcile different management styles?	
	How to retain top managers?	
	What other considerations do you need to make: legal, political, economic, etc.?	