

SOLVING THE ALLY-VERSUS-ACQUIRE DILEMMA THROUGH THE DUAL LENSES OF SUBJECTIVE AND OBJECTIVE VIEWS

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Abstract. Nowadays many firms seek hard-to-imitate assets via allying with or acquiring other firms that own desired resources. As such, how to choose between alliances and acquisitions becomes a critical decision, and one important determinant is interfirm factors. This study probes three crucial yet underexplored interfirm differences, and develops scales to capture managers' perceptions of the differences that, based on managerial cognition literature, dictate the ally-versus-acquire choice. Further, we argue that managers adjust their judgement across varying objective conditions. Each perceived difference is thus paired with a moderator identified respectively from the resource-based view, competitive dynamics, and collaborative capability literature. Evidences on Taiwanese firms show that a larger resource-deployment difference enhances acquisition likelihood, while greater differences in marketing praxis and human resource management increase alliance formation. Moreover, the resource-deployment difference leads to alliances for relatively younger partners, and the difference in human resource management favors acquisitions when focal firms have more interfirm governance experience.

Keywords: ally-versus-acquire decision, governance mode choice, alliance, acquisition, interfirm difference, subjective assessment, objective condition.

JEL Classification: L10, L20, L21, L24, L60, M10, O53, P13.

Introduction

Alliances and acquisitions are vehicles through which firms access hard-to-imitate assets owned by others (Cuypers *et al.* 2017; Wassmer *et al.* 2017). Although both practices entail interfirm interaction and coordination, alliances (whether equity- or nonequity-based) are exercised by cooperation between firms that maintain their independent identities and ownerships (Lioukas *et al.* 2016; Reuer, Devarakonda 2016), while acquisitions are executed via internalization in which a target firm surrenders its ownership and control to the acquirer (Glendening *et al.* 2016; Graffin *et al.* 2016). These two governance modes have distinct advantages and disadvantages. It is thus important for firms to understand when to choose one over the other. One determinant long recognized in the literature is interfirm differences, and previous research tends to

rely heavily on objective proxies to capture the differences (Wang, Zajac 2007; Yang *et al.* 2010).

Though insightful, there are limitations to assess interfirm differences using objective measures. First, objective indicators do not reflect managers' cognitive interpretations and diagnoses of other firms. As the managerial cognition literature suggests, firms' strategic choices are shaped largely by how top executives conceive and diagnose their competitive environments (Ginsberg 1994). Second, recent research (Bauer, Matzler 2014) shows that managers consider both subjective evaluations and objective information simultaneously. A disconnection between subjective and objective assessments prevents us from developing a finer-grained explanation for the ally-versus-acquire decision.

This research aims to address the above gaps by asking: How do perceptions of interfirm differences affect the choice between alliances and acquisitions, and how are these influences contingent on hard-fact conditions? Our study makes at least three important contributions. First, we expand the interfirm-difference discussion to three critical organizational routines (deploying resources, exercising marketing praxes, and managing employees) that need more investigation as Lavie *et al.* (2012) suggested. These underexplored interfirm differences deserve attention in the ally-versus-acquire decision because firms use either strategy to achieve resource-, market-, and efficiency-seeking goals. Second, this study is the first to capture managers' assessment of those interfirm differences that, according to the managerial cognition literature, determines the governance mode choice. Third, we contribute by analyzing how these interfirm differences interact with objective conditions (firm age, industry sectors, and interfirm experience) to impact the ally-versus-acquire preference. Our argument can be extended to other strategic settings, such as foreign market entry, which have long perplexed managers and scholars.

In the following sections we compare alliances and acquisitions, and develop our conceptual framework. Next, we describe methods. Then, we report results, followed by conclusions that state contributions and suggest future directions.

1. Literature and hypotheses

Alliances and acquisitions have their own advantages and disadvantages (please see Table 1 for a comparison). To decide between them, firms ought to weigh which strategy could bring more benefits than drawbacks under various conditions. In relation to this, managers develop and use their mental models to make decisions. A mental model is a managerial perception reflecting a "knowledge framework that selects and actively modifies experience in order to arrive at a coherent, unified, expectation-confirming and knowledge-consistent representation of an experience" (Alba, Hasher 1983: 203). However, managers' cognitive assessments likely reflect an incomplete picture in complex information environments. Likewise, using only objective data and overlooking managers' knowledge of a subject is problematic. There is thus a need to examine simultaneously the subjective and objective scanning of internal and external information for the ally-versus-acquire choice.

Table 1. Comparison of key characteristics between alliances and acquisitions

Features	Alliance	Acquisition
Definition	A voluntary agreement between firms that share resources for co-development or co-provision of products and services	A corporate action in which one firm buys the ownership stakes of a target firm in order to assume control of the target firm
Practice	Exercised by cooperation between firms that maintain independent identities and ownership	Executed via internalization where a target firm surrenders its control and ownership to the acquirer
Coordination	Coordination is sustained by discrete negotiations and mutual expectations of reciprocity	Coordination is sustained mostly through managerial fiat within the hierarchy
Flexibility	More flexible in that allying firms can adjust the form of partnerships to respond to unexpected changes	Riskier and less flexible due to a significant, irreversible financial payment for completing the deal
Control over desired assets	Absence of formal managerial fiat does not guarantee full control over the desired assets possessed by partners	Being under a common ownership and managerial authority gives the acquirer a better control over the desired assets of the target
Asset indigestibility	Less severe as allying firms can cooperate only in the areas that are mutually beneficial	More severe as an acquisition often commingles with the unwanted assets of the target
Transactional hazard	Incomplete contracts brought by bounded rationality likely expose allying firms to threats of partners' opportunism, such as hold-up, leakage of know-how, and so on	Information asymmetry between the acquirer and the target likely leads to adverse selection, as the acquirer cannot ascertain the true value of the target
Managerial challenge	Lack of a common control system and laying governance scheme on incomplete contracts are harmful to solving conflicts	Integration of the acquirer and the target under a common ownership and managerial authority is costly and complex

We identify three critical organizational routines, and argue that the effects of the three perceived interfirm differences are moderated by respective objective conditions. According to the resource-based view, resource-deployment differences represent each firm's unique trajectories of competency development, and firm age is a crucial objective indicator that hints at the logic of a firm's resource allocation to outsiders (Wernerfelt 1984; Winter 2003). Marketing-praxis differences allude to potential competitive relationships, and this competitive intensity differs between high- and low-tech segment (Czarnitzki, Thorwarth 2012; Hagedoorn, Duysters 2002). The differences in human resource management denote managerial challenges facing alliance or acquisition participants, and their prior interfirm governance experience (known as collaboration capability) affects how they tackle the managerial difficulties (Ellis *et al.* 2011; Madsen, Desai 2010). Figure 1 illustrates our conceptual framework.

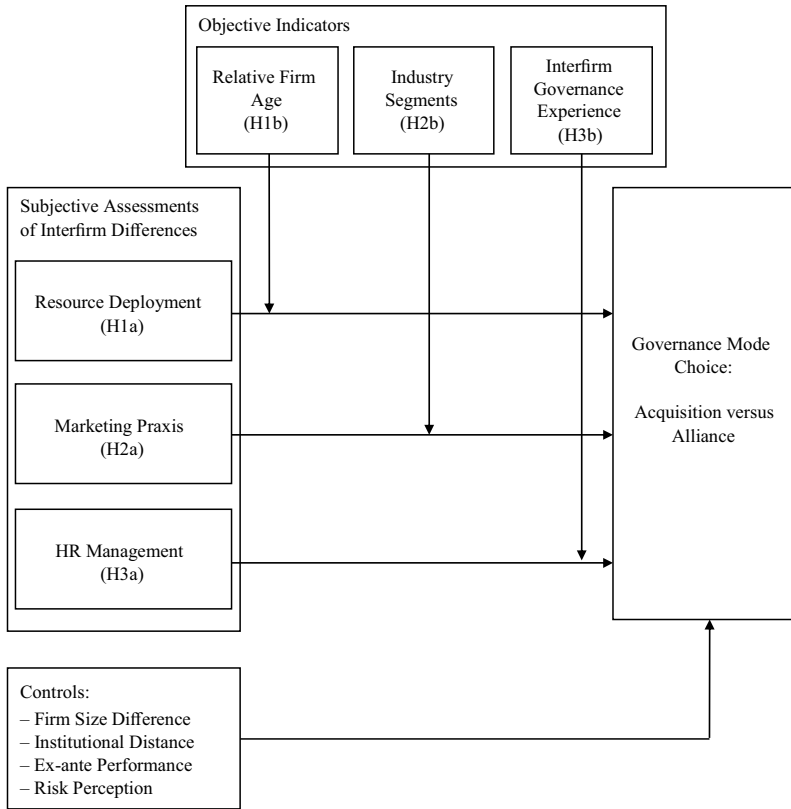


Fig. 1. The conceptual framework

1.1. Resource deployment and relative firm age

1.1.1. Effects of perceived differences in resource deployment

Resource deployment refers to the commitment of resources to specific areas that are converted into rent-generating capabilities over time (Kor, Mahoney 2005). According to the resource-based view, resource deployment dictates what capabilities firms are equipped with, and the capabilities are often not perfectly mobile and imitable across firms (Barney 1991). A large difference in resource deployment between firms suggests that these firms are more likely to possess knowledge and competencies substantially divergent from each other. In this case, an acquisition becomes a better vehicle than an alliance for firms aiming to obtain the knowledge and/or capabilities held by others.

First, because of disparate trajectories of resource deployment between two firms, it is difficult for a focal firm, as an outsider, to make sense of how another firm uses its resources. Becoming an insider via acquisitions can overcome this causal ambiguity. Second, although acquirers may confront challenges in gauging targets' competency value and assimilating knowledge when there is a large interfirm resource-deployment difference (Carayannopoulos, Auster 2010), alliances also expose participants to similar

types of risks, including poor partner selection and low absorptive capacity (Fonti *et al.* 2017; Holloway, Parmigiani 2016).

Taken together, because of resource inimitability and immobility in the situation of greater resource-deployment differences, an acquisition is a more feasible mode than an alliance for a focal firm to obtain the desired knowledge and competencies while maintaining the value embedded in the target company.

H1a: Other things being equal, a greater perceived interfirm difference in resource deployment is associated with the choice of an acquisition over an alliance.

1.1.2. Moderation of relative firm age

Stressing idiosyncratic paths of organizational growth across firms, the resource-based view (Wernerfelt 1984) and the capability perspective (Winter 2003) have long implied the crucial role of firm age in the deployment of resources and development of capabilities.

Focal firms facing younger candidates prefer alliances, as the concerns about asset immobility and inimitability brought by large resource-deployment differences can be alleviated. Many scholars note that newer firms usually have a lower level of structural complexity, which means a more direct connection between employees' efforts and the firms' outputs (Kotha *et al.* 2011). This so-called causal clarity constitutes the prerequisite for learning and imitation to occur in alliances, and the need of using acquisitions to overcome inimitability becomes weaker. Besides, firms develop their capabilities under a sequence of historical circumstances, and their capabilities are generally embedded within the social fabric of the firm. A shorter corporate history thus makes it less complicated for other companies to duplicate the competencies.

In sum, younger candidates relative to the focal firms can mitigate concerns over resource immobility and inimitability, and thus increase the likelihood of choosing an alliance over an acquisition.

H1b: The younger the candidate is relative to the focal firm, the more likely that a greater perceived interfirm difference in resource deployment is associated with the choice of an alliance over an acquisition.

1.2. Marketing praxis and industry segment

1.2.1. Effects of perceived differences in marketing praxis

Marketing praxis is a set of actions that firms undertake to sell products or services. It involves determining what products or services to offer, which customer segment(s) to target, how to reach the potential consumers, and what pricing position to maintain vis-à-vis competitors' offerings (Coviello *et al.* 2000). Larger interfirm differences in marketing praxis denote that firms operate in distinct competitive landscapes, and thus possess differing market expertise; in contrast, firms are very likely to be more direct competitors if their marketing praxes are similar.

Being direct competitors makes it particularly critical for each firm to protect its own market information and marketing plans from leaking to the other. This leakage issue

is exacerbated in alliances that generate substantial economic conflicts in overlapping territories during the period of partnership (Abdi, Aulakh 2017), yet do not exist in acquisitions that reduce competition in the market.

Meanwhile, due to the fear of revealing market knowledge to rivals, allying with direct competitors usually creates shallow cooperation within a limited scope (Oxley, Sampson 2004). Further, when partners are direct competitors, it approximates a zero-sum game where a firm's financial performance is subject to its ability to position its strengths against rivals' weaknesses, and knowledge gained from the alliance would be applied by each partner in the same competitive arena (Holloway, Parmigiani 2016). As such, the payoff from misbehavior in the alliance is particularly high, which would stimulate greater opportunism in the partnership.

All of the above reasons lead to the preference for acquisitions when partnering firms are more similar in their marketing praxes, but the selection of alliances when they have greater marketing-praxis differences.

H2a: Other things being equal, a greater perceived interfirm difference in marketing praxis is associated with the choice of an alliance over an acquisition.

1.2.2. Moderation of industry segments

Firms in high-tech sectors are required to invest heavily in R&D for developing innovative technologies as the source of their competitiveness (Czarnitzki, Thorwarth 2012). Competing in a high-tech industry confronts firms with a more dynamic environment that creates high levels of uncertainty and makes technologies obsolete more rapidly. In comparison, low-tech industrial environments are relatively stable and have longer product life cycles, which enable firms to pursue refinement of existing technologies (Hagedoorn, Duysters 2002).

Prior studies have noted that frequent changes in market conditions are associated with a disproportionate preference for a more flexible organizational form, such as alliances (e.g. Lioukas *et al.* 2016). This is because new knowledge expires quickly and nimble strategic actions are needed for firms to survive in high-tech sectors. Timely learning from partners through a loosely organizational, collaborative form appears more appropriate than pursuing formal control in acquisitions, which involve complex integration processes. The rapid obsolescence of technologies and shorter product life cycles in high-tech industries accentuate the problem of lengthy integration in acquisitions, which would create windows for rivals to catch up.

By contrast, in low-tech markets the governance decision tends to be the opposite for partners with more distinct marketing praxes. Less volatile environments in low-tech markets exacerbate the concern about leaking proprietary market knowledge to alliance partners from other areas, due to great potential of creating future competitors who gain more from the appropriation in the slow-moving setting. However, less dynamic business environments enable acquirers to better detect the intentions and value of candidates, and allow a longer grace period for acquirers to deal with integration before new factors emerge (Hagedoorn, Duysters 2002).

H2b: In a high-tech (low-tech) sector, a greater perceived interfirm difference in marketing praxis is associated with the choice of an alliance (acquisition) over an acquisition (alliance).

1.3. Human resource management and interfirm governance experience

1.3.1. Effects of perceived differences in human resource management

Human resource (HR) management refers to the art of exercising authority, strengthening the bonds among employees based on a common platform, and motivating them to work together as a unified unit (Som 2003). HR management style is linked to organizational culture, which is the collective programming of the mind that distinguishes the members of one group of people from another (Datta 1991). As such, individuals at different organizations are inclined to form their own work approaches and develop their unique leadership practices. When there are large interfirm differences in HR management, more conflicts are likely to occur between firms.

The issue of significant HR management differences is more problematic in acquisitions than in alliances. Acquisitions entail integration of workforces from acquired and acquiring firms that may have diametrically opposed managerial styles (Wang *et al.* 2016). Research on trust thinks that clashes among members belonging to different groups stem from their divergent managerial schemes, where perceptual biases build and mutual trust erodes (Kramer 1999). As anecdotal evidence shows that employees in the acquired firms often react unfavorably to the change in ownership (Guerrero 2008), a lack of trust between the acquired and the acquiring parties due to significant HR management differences will make those employees feel uncertain with regard to their career patterns, mobility, and development. Such problems pose substantial obstacles in integration and prevent realization of the acquisition's benefits.

In comparison, alliances are a more appropriate governance choice, since higher flexibility allowed in such collaborations offers more room and time to deal with the tension, distrust, and hostility due to significant HR management differences between partners (Hoehn-Weiss *et al.* 2017). Thus, alliances appear to provide a buffer zone for smoothing out interfirm managerial collisions.

H3a: Other things being equal, a greater perceived interfirm difference in HR management is associated with the choice of an alliance over an acquisition.

1.3.2. Moderation of prior interfirm governance experience

When facing candidates with different HR management styles, firms possessing more interfirm governance experience of alliances and acquisitions are likely to have a stronger preference for acquisitions over alliances. First, after firms have made a considerable number of acquisitions, they tend to develop routines that can serve as a blueprint for and can be replicated on new acquisitive activities. These routines contain preferred approaches, speeds, and sequences of integration. Because routines frequently embody and exert inertial forces, prior experience increases the likelihood of subsequent acquisitions (Zollo 2009).

Second, insofar as alliance experience is concerned, it is also conducive to undertaking more acquisitions. Forming alliances involves partner selection, contract negotiation and enforcement, and interfirm coordination (Krishnan *et al.* 2016). These procedures are similar to those in acquisitions, which involve target selection, negotiation and stipulation of acquisitive deals, and interfirm integration. The similarities between alliance and acquisition practices give firms opportunities to accumulate relevant knowledge about conducting acquisitions.

H3b: The more prior interfirm governance experience that the focal firm possesses, the more likely that a greater perceived interfirm difference in HR management is associated with the choice of an acquisition over an alliance.

2. Methods

2.1. Data and sample

We tested our hypotheses on a sample of alliances and acquisitions made by Taiwanese manufacturers. We chose this context for four reasons. First, Taiwanese firms have engaged heavily in allying with or acquiring other firms so as to gain strong footholds in global marketplaces. Second, firms in the manufacturing industry have intensive involvement in alliances and acquisitions. Third, limiting observations to the manufacturers from one country helps minimize home-country and industry effects. Fourth, our focus on alliances or acquisitions taking place between high-tech firms or between low-tech firms allows us to examine how the ally-versus-acquire choice varies across the two industries.

We collected the data in 2013 through a questionnaire mail survey. A list of alliances and acquisitions conducted during 2010 and 2012 was first compiled from the Securities Data Company (SDC) database. The focal firm in an alliance is the Taiwanese participant if it is an international alliance and the dominant partner (holding more equity for equity-based alliances, or initiating the cooperation for non-equity ones) in a domestic alliance, while the focal firm in an acquisition is the Taiwanese acquirer. The above sampling frame yielded 345 alliances and 360 acquisitions.

Our key informants are senior executives with titles such as general managers or chief executive officers, and all were involved in the alliances or acquisitions. The types of industry that their firms operated in comprise (electronics, communication, and computer) equipment manufacturing, food processing, textile, and metal fabrication. On average, the age of their firms is around 30 years up to the event date, and their size approximates 10,000 employees.

The development of our questionnaire was guided by theoretical considerations, previous literature, and consultation with experts. We first developed the questionnaire in English and then translated it into Chinese. To ensure item equivalence in both languages, we back translated from Chinese to English, and compared the two versions. The scales were reverse-coded where appropriate to reduce social desirability bias. We pre-tested our Chinese questionnaire with 20 senior managers and then refined items.

After the initial mailing and two waves of reminders, we received a total of 141 completed and usable surveys for a 20% response rate, which is comparable to that of other recent studies conducted in Taiwan (Contractor *et al.* 2005). Table 2 summarizes respondent profiles by governance choices. To check nonresponse bias, we performed t-tests to compare the participants on the initial list of 345 alliances and 360 acquisitions with those who returned our surveys using information available from secondary sources. The results of insignificant differences suggest no nonresponse bias.

Table 2. Respondent firm profiles (N = 141)

	Acquisition (N = 63)	Alliance (N = 78)
Resource deployment differences (mean value)	5.42	4.55
HR management differences (mean value)	4.39	5.05
Marketing praxis differences (mean value)	4.01	3.58
Institutional distance (mean value)	1.65	1.45
Relative firm age (Log transformed mean value)	1.09	3.08
Prior governance experience (mean value)	2.83	2.17
Industry segments		
High-tech (number of firms)	48	35
Low-tech (number of firms)	15	43

2.2. Dependent variable

Governance mode choice, alliances versus acquisitions, was captured by a dummy variable in which 1 indicates an acquisition and 0 represents an alliance. Consistent with the definition discussed in prior studies (Carayannopoulos, Auster 2010), our acquisitive cases all have a controlling interest of over 50%, and our alliance sample includes both non-equity and equity-based forms of partnership.

2.3. Independent variables

Based on our literature review, *resource-deployment differences* were assessed on four critical organizational resources (Tseng *et al.* 2007). Following Homburg and Buceries (2006), we measured *marketing-praxis differences* with five items concerning target customers, product or service features, distribution channels, and pricing positioning. Adapted from Datta (1991), we used five items to gauge *HR-management differences* in output- /process-oriented, bureaucratic/unbureaucratic, punishment/reward, hierarchical/egalitarian, and authoritative/participative dimensions. Table 3 lists these items.

2.4. Moderators

We computed *relative firm age* by subtracting the age of a candidate firm from the age of the focal firm. A greater value indicates a younger candidate relative to the focal firm. The alliances or acquisitions participated in by pairs of firms operating in high-tech industries were coded “1” and “0” for the pairs in low-tech industries. We distinguished between *low- and high-tech* segments based on the definitions given by the US Department of Labor (Hecker 2005) and the guidelines suggested by Kile and

Phillips (2009). Focal firms' *prior interfirm governance experience* was gauged by the cumulative number of alliances and acquisitions that the focal firms had undertaken since their founding up to the year of the focal events.

2.5. Control variables

We controlled for four variables influential to governance mode choice in previous studies (Yang *et al.* 2010; Zhou *et al.* 2016). *Firm size difference* was measured by calculating the difference between two firms in the number of employees. We adopted the composite index introduced by Kogut and Singh (1988) to assess *institutional distance* between the home country of a candidate and that of a focal firm. *Ex-ante performance* was gauged by focal firms' satisfaction with market share and profitability before the focal event (1 = strongly dissatisfied to 7 = strongly satisfied). *Risk perception* asks respondents about their assessment of creating potential competitors, leaking proprietary assets, and losing competitive advantages (1 = strongly disagree to 7 = strongly agree).

Table 3. Survey items for cognitive interfirm differences

Constructs	Factor loadings	Average variance extracted	Construct reliability
Interfirm differences in <i>resource deployment</i> (anchored on a seven-point Likert scale, 1 = strongly similar to 7 = strongly different)		0.60	0.86
Compare your firm with the candidate firm:			
Allocate resources to boost R&D intensity	0.81		
Allocate resources to enhance manufacturing efficiency	0.79		
Allocate resources to improve financial position	0.69		
Allocate resources to cultivate human talents	0.81		
Interfirm differences in <i>marketing praxis</i> (anchored on a seven-point Likert scale, 1 = strongly agree to 7 = strongly disagree)		0.57	0.87
Compare your firm with the candidate firm:			
Target at the same groups of customers	0.68		
Offer products/services made with the same technology	0.78		
Offer products/services identical in quality	0.77		
Sell products/services through the same channels	0.73		
Have the same pricing positioning	0.81		
Interfirm differences in <i>HR management</i> (anchored on a seven-point Likert scale, 1 = strongly similar to 7 = strongly different)		0.63	0.87
Compare your firm and the candidate firm:			
Encourage employees to try new and better ways of doing a job	0.72		
Define each employee's duty clearly	0.75		
Give more praise and recognition than punishments to motivate employees	0.92		
Treat employees equally and as family members	0.78		
Encourage employees to actively participate in all corporate activities and events*			
Fit Indices: $\chi^2 = 121.60$, d.f. = 62, $p < .001$; NNFI = .96; CFI = .97; RMSEA = .07			

Note: *Item was dropped during the measure validation process.

2.6. Measure validation

Confirmatory factor analyses assessed the convergent and discriminant validity of all variables measured on reflective scales (Gerbing, Anderson 1988). The results indicate a reasonable fit for the model ($\chi^2 = 121.60$, d.f. = 62, $p < 0.001$; NNFI = 0.96; CFI = 0.97; RMSEA = 0.07). All the indicators loaded substantively (0.68 or above) and significantly on their hypothesized factors ($p < 0.001$). Average variance extracted ranged from 0.57 to 0.63, and construct reliabilities from 0.86 to 0.87 (Nunnally, Bernstein 1994). With regard to evidence of discriminant validity, in all cases the average variance extracted by each factor exceeded the squared correlation between the factor pair (Fornell, Larcker 1981). Establishing discriminant validity using the average variance extracted measure also protects against the deleterious effects of multicollinearity in the presence of measurement error (Grewal *et al.* 2004). The confirmatory factor analysis results are shown in Table 3.

One concern with survey measures is the presence of common method variance. We used the Harman one-factor test to examine this issue (Podsakoff, Organ 1986), an approach routinely used in the literature (Newbert 2008). The factor analysis of the variables used in the regression models did not yield one single factor and the first factor did not account for the majority of the variance (only 18.5%), indicating no serious common method variance.

3. Results

Table 4 reports the descriptive statistics and the correlation matrix. Our binary dependent variable dictates us to use binomial logistic regression in which positive coefficients signify that independent variables or interaction terms increase the probability of choosing acquisitions over alliances. To minimize multicollinearity, we mean centered our constructs before creating interaction terms. Table 5 shows the results of our hypotheses testing. Model I reports the results with only the control variables, Models II, III, and IV with the addition of three sets of main effects and interactions, and Model V the full model. The full model has much better fitness (Chi-square = 63.27, $p < 0.001$; Cox & Snell R-square = 0.362) than other models, showing the adequate explanatory power of our conceptual framework.

H1a postulated that an acquisition is more preferable than an alliance for larger resource-deployment differences, and the results support the hypothesis ($b = 0.450$, $p < 0.01$). Taking into account the moderating effect of relative firm age, alliances are more favorable than acquisitions for a relatively younger target ($b = -0.025$, $p < 0.001$), showing support for H1b. H2a proposed that greater marketing-praxis differences will favor an alliance more than an acquisition, and we found support for this ($b = -0.400$, $p < 0.10$). Our results do not support H2b that firms in high-tech sectors tend to choose alliances, while those in low-tech sectors acquisitions, in order to manage marketing-praxis differences ($b = 0.420$, $p > 0.10$). H3a posited that increased HR-management differences make alliances more favorable than acquisitions, and we found support for this ($b = -0.631$, $p < 0.01$). We also obtained support for H3b that greater interfirm governance experience strengthens the possibility of using acquisitions rather than alliances for tackling large interfirm HR-management differences ($b = 1.101$, $p < 0.10$).

Table 4. Descriptive statistics and correlations

	1	2	3	4	5	6	7	8	9	10
1. Governance Mode	1.00									
2. Resource Deployment Differences	0.30*	1.00								
3. HR Management Differences	-0.25	-0.05	1.00							
4. Marketing Praxis Differences	-0.13	-0.28*	-0.05	1.00						
5. Relative Firm Age	0.12	0.22*	-0.08	-0.04	1.00					
6. Interfirm Governance Experience	0.13	0.16	0.01	-0.28*	0.19*	1.00				
7. Industry Segments	0.32*	0.12	0.02	-0.12	0.08	0.10	1.00			
8. Institutional Distance	0.04	-0.13	0.04	-0.11	-0.11	0.15	0.19*	1.00		
9. Ex-ante Performance	-0.03	0.06	0.27*	0.23*	-0.09	-0.01	0.04	0.05	1.00	
10. Risk Perception	0.13	0.07	-0.07	0.11	0.09	0.10	0.04	-0.09	0.12	1.00
Mean	0.45	4.94	4.75	3.77	6.14	2.64	0.59	1.54	5.10	3.59
Standard Deviation	0.50	1.45	1.32	1.62	29.45	0.30	0.49	2.67	1.43	1.37

Note: * $p < 0.05$.

Table 5. Binomial logistic regression results (acquisition = 1 and alliance = 0)

	Model I	Model II	Model III	Model IV	Model V
Resource Deployment Differences (H1a: +)		0.545*** (0.154)			0.450** (0.181)
Resource Deployment Differences x Relative Firm Age (H1b: -)		-0.019** (0.006)			-0.025*** (0.007)
Marketing Praxis Differences (H2a: -)			-0.614** (0.219)		-0.400+ (0.250)
Marketing Praxis Differences x Industry segments (H2b: -)			0.708** (0.263)		0.420 (0.320)
HR Management Differences (H3a: -)				-0.404** (0.147)	-0.631** (0.204)
HR Management Differences x Interfirm Governance Experience (H3b: +)				0.727 (0.574)	1.101+ (0.762)
Relative Firm Age		0.014+ (0.009)			0.020+ (0.011)
Industry Segments			4.111*** (1.145)		3.394** (1.361)
Interfirm Governance Experience				0.529 (0.627)	0.050 (0.833)
Firm Size Difference	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)
Institutional Distance	0.040 (0.064)	0.059 (0.075)	-0.016 (0.069)	0.024 (0.068)	-0.005 (0.086)
Ex-ante Performance	0.241 (0.180)	-0.114 (0.193)	-0.255 (0.199)	0.043 (0.188)	0.018 (0.240)
Risk Perception	-0.312 (0.201)	0.347+ (0.203)	0.110 (0.199)	0.222 (0.191)	0.305 (0.248)
Cox & Snell R ²	0.033	0.202	0.178	0.105	0.362
Chi-square	4.69	31.83***	27.63***	15.65*	63.27***

Notes: +*p* < 0.10, **p* < 0.05, ***p* < 0.01, ****p* < 0.001; standard errors are in the parentheses.

We plotted the patterns of significant moderating effects. As Figure 2 shows, the propensity to choose alliances increases when a candidate firm is relatively younger and there is a rising interfirm resource-deployment difference. By contrast, in the case where a candidate firm is older, the increasing interfirm resource-deployment difference is more likely to lead to the choice of acquisitions. As demonstrated in Figure 3, the probability of choosing acquisitions is higher for firms with more interfirm governance experience when there is a large interfirm HR-management difference.

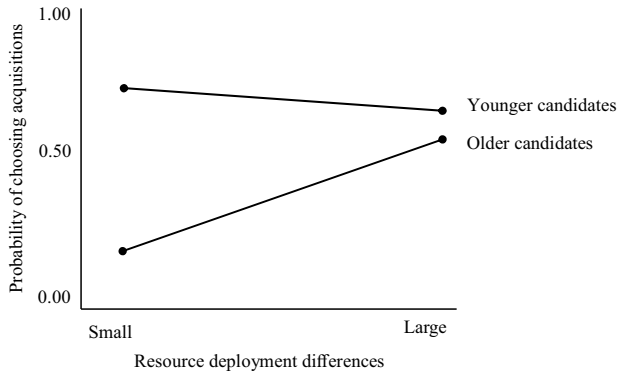


Fig. 2. The moderating effect of relative firm age on the relationship between resource deployment differences and the ally-versus-acquire choice

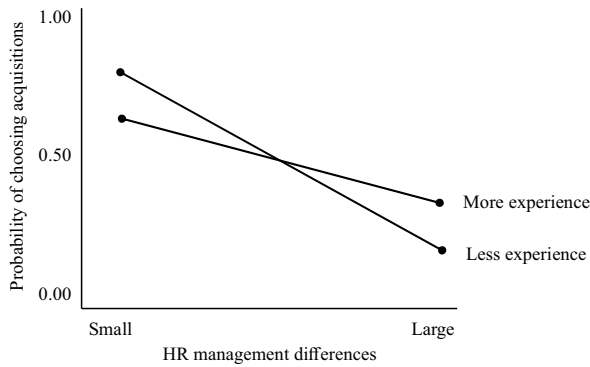


Fig. 3. The moderating effect of interfirm governance experience on the relationship between HR management differences and the ally-versus-acquire choice

Conclusions

This study makes several important contributions. First, subjective assessments have been underexplored in the ally-versus-acquire choice research. This study analyzes how managers' perceptions of interfirm differences affect this decision, and further recognizes the importance of combining subjective and objective evaluations in this decision. Second, as resource deployment concerns the development of proprietary knowledge, this study suggests using acquisitions to tackle this interfirm difference and to obtain desired knowhow. In comparison, as to managerial differences in such areas as marketing praxis and HR management, alliances are more suitable to buffer interfirm conflicts. Third, the significant moderating role of relative firm age supports the resource-based view that assets with a history-dependent nature are inimitable and have high causal ambiguity to outsiders, rendering acquisitions more efficient to obtain the assets held by older targets. Besides, the salient moderation of interfirm governance experience resonates with the learning and spillover effects discussed in the learning literature.

The present study has some limitations that, at the same time, represent directions for future research. To begin with, our sample consists of acquisitions and alliances

conducted by Taiwanese firms in high- and low-tech industrial sectors. Although we believe that this sampling frame provides a suitable platform for testing our conceptual framework, caution should be exercised in generalizing our results to other business or national settings. Second, this study aims to capture managers' perception of interfirm differences and have carefully developed measurement. Future research may think to also devise objective measures for our constructs, and compare the effects of the two types of appraisals. Last, our identification of moderators is based on the theoretical argument central to key features of each interfirm difference. Future research can extend our conceptualization by considering other moderators.

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