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Determinants of Mergers and Acquisitions in Emerging Asian Countries: Effects of Confucianism and Technological Development

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Abstract

Asian emerging markets exemplify the contemporary trend of glocalization (globalization-localization). Countries in this region have strong cultural bonds shaped by the influence of Confucianism, which has given rise to a distinctive approach to conducting business, including the realm of mergers and acquisitions. The homogeneity of cultural values fosters trust among parties even in cross-border transactions, impacting the assessment of transaction premiums. Simultaneously, within this region, a cluster of Asian Tiger countries distinguishes itself by leading in technological advancements, particularly in the realm of digitalization. The escalating competitiveness of technologically advanced companies further influences estimates of transaction premiums.

This paper endeavors to delve into the theoretical aspects of these issues and substantiate, through empirical evidence, the cultural impact of Confucianism and technological progress on mergers and acquisitions (M&A). Our research is grounded in a database encompassing 2677 cross-border deals compiled from January 1, 2002, to January 1, 2021, for 10 burgeoning Asian markets. This study marks the first exploration of M&A deal value and firm valuation during transactions utilizing a glocal region as a case study. Our primary findings substantiate the notion that cultural affinities exert a substantial influence on M&A deal values, with a propensity for lower values among culturally similar countries. Congruent cultural values build trust among stakeholders and safeguard from additional risks. These results give policymakers and business entities an opportunity to adjust their decisions and refine their comprehension of factors that shape the economy.

Keywords: mergers and acquisitions, acquisition premium, Asian emerging markets, Asian Tigers, Confucianism, technological development, cultural identity

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Introduction

Over the past few decades, our world has witnessed a significant surge in globalization. International trade, MNCs, and foreign investments have exerted a profound influence on economic growth. Today, globalization has become commonplace in the context of business operations. However, within the broader spectrum of globalization, regionalization tendencies are on the rise. Regional influences and interconnections between neighboring countries make them cluster. As a result, regional dynamics can be just as strong as global ones, leading to the formation of "glocal" entities characterized by robust economic, cultural, and political ties.

Many companies are expanding their operations beyond local borders, moving goods, services, and capital across the globe. Cross-border mergers and acquisitions (M&A) have garnered significant attention in academic research, with numerous studies exploring this phenomenon across different groups of countries. Simultaneously, it may be interesting to study M&A deals executed by firms within the same region to see whether a homogeneous business environment impacts the processes and outcomes of these transactions.

Among these regional groups of countries, the emerging nations of the Asian region stand out prominently. M&A transactions involving Asian countries have gained increasing prominence in recent years. According to a McKinsey report, M&A activity in Asia experienced substantial growth in 2021, with the number of deals surpassing 2020 figures by more than 20%. The average deal size in Asia has also been on the rise, with the value of such transactions in 2021 approximately 40% higher than in 2019[1]. This surge in M&A activity reflects the growing significance of Asian countries in the global economy, currently accounting for 39% of the world's GDP[2].

Despite significant geopolitical and financial challenges, M&A activity in the Asia-Pacific (APAC) region remained robust in the first half of 2022, boasting 648 deals with a total value of US$403 billion. The notable growth in deal volumes and values, along with an increasing focus on the APAC region, indicates that APAC companies are leveraging M&A to transform their businesses. China, with M&A deals totaling $144 billion, led the way in the Asia Pacific region during H1 2022, solidifying its position as the most active M&A country in the region. Consequently, M&A transactions involving Asian countries have become pivotal for companies seeking growth and global expansion opportunities[3].

Furthermore, the region has shown impressive growth rates, with numerous Asian countries experiencing substantial economic expansion[4]. Additionally, Asian countries are at the forefront of innovation, with many developing Asian economies nearing or reaching the global innovation frontier[5].

Countries within this region form cultural clusters, giving rise to a glocal cultural entity. The cultures within these clusters exhibit common features and formats, influenced by the countries that constitute them. Confucianism, a historical underpinning in these regions, has emerged as a potent developmental force. It significantly shapes relationship dynamics and communication processes and fosters a sense of paradoxical equilibrium. However, Confucianism has been noted to potentially stifle creativity in various forms. A "Confucian firm" is characterized by collectivism, paternalism, affectionism, harmony, and the importance of relationships. Concurrently, Sinosphere business ethics exhibit a blend of traditional values and Western ideas.

Among the emerging Asian markets, certain countries stand out as leaders in technological development and digitalization. As a country advances in technological prowess, it becomes increasingly appealing to foreign investors. Simultaneously, domestic firms contemplate expansion to fulfill their growth ambitions. To analyze the regional characteristics of M&A deals, it is imperative to consider technological development and digitalization.

This paper undertakes a thorough examination of the theoretical aspects related to these topics while substantiating the cultural impact on M&A deals through empirical evidence. Additionally, we delve into ethical paradigms, encompassing both interpersonal and business ethics.

The primary objective of this study is to explore the cultural impact of Confucianism on M&A deals, ethical issues, and the state of digitalization within the Asian region. The practical application of this research lies in policy recommendations. Understanding how specific factors influence the evaluation of companies assumes critical importance in the business landscape. The posing of this question is novel within the relatively homogeneous business environment in the large region of emerging Asian markets. While the influence of digitalization on technological development is a common theme in M&A literature, the effect of Confucianism on M&A deals remains underdeveloped. Thus, this study seeks to scrutinize its impact on M&A value and M&A premiums, which are integral components of a company's overall value. The study is designed to uncover potential theoretical gaps, aligning with the initial objectives of this research.

Cultural identity remains a multifaceted variable even within culturally proximate regions, where subtle distinctions persist. However, in regions where cultural similar-

[1] M&A Asia | McKinsey.

[2] Asia GDP 2021 – StatisticsTimes.com.

[3] M&A Asia | EY.

[4] GDP Annual Growth Rate – Countries – List | Asia (tradingeconomics.com).

[5] Asian Development Outlook (ADO) 2020: What Drives Innovation in Asia? | Asian Development Bank (adb.org).

ities abound, influences like Confucianism can exert a profound unifying impact, shaping not only overall outcomes but also the specific decision-making processes at the transaction level. In other words, individuals involved in these deals often unconsciously adhere to culturally ingrained patterns. The presence of shared values fosters trust among stakeholders and shields company shareholders from additional risks.

This paper has the following structure. We commence with a comprehensive literature analysis, elucidating the theoretical underpinnings of M&A determinants, with a particular emphasis on cultural identity and technological development within emerging Asian markets. This analysis provides the foundation for constructing an analytical framework and formulating hypotheses. Subsequently, we present and discuss the variables of our empirical model at both country and firm levels. Our examination of the Asian M&A landscape, based on a dataset comprising 2,677 cross-border deals collected between January 1, 2002, and January 1, 2021, enables us to investigate how cultural, institutional, and economic factors, as well as digitalization and innovation indicators at the country and firm levels, are linked to total deal value – a proxy for measuring the true market value of a company – and the acquisition premium, which is associated with unlocking hidden value, managerial motivations, and more. By testing the formulated hypotheses, we shed light on the roles played by Confucianism and the technological leadership of Asian Tigers in assessing the value of companies acquired within the analyzed region. In doing so, we contribute to a deeper understanding of M&A determinants and the intricate relationships between companies in different countries. In the final two sections, we present our findings and their limitations and provide implications for future research.

Background Theory and Hypotheses Development

Cultural Aspects of M&A Deals

M&A deals typically involve M&A premiums, representing the difference between the price paid for the target company in a merger or acquisition and the target's assessed market value. It signifies the excess amount over the fair value of all identifiable assets paid by the acquiring company [1]. While there is no concrete evidence of financial synergy motives for overpayment in M&A deals [2], factors such as unlocking hidden value and managerial motives, among others, often contribute to the inclusion of premiums in the deal value.

The impact of cultural disparities between the countries involved in an M&A transaction on these premiums has been a topic of discussion in the literature. Historical and societal contexts shape people's ways of living, communicating, and conducting business. These factors invariably influence M&A deals, as individuals who collectively form a cultural base govern these companies, work within them and, last but not least, engage in negotiations during M&A transactions. However, the relationship between cultural factors and M&A premiums is nuanced. The dependence between cultural differences and target premiums is asymmetrical, with a higher level of familiarity between deal participants often leading to a discount [3]. In essence, collectivist shareholders tend to seek lower premiums [4]. In M&A activities, collectivist shareholders are inclined to demand lower premiums compared to individualist shareholders. They are motivated by the success of the group in negotiations and are more likely to consider the welfare of other stakeholders. Thus, collectivist shareholders are more likely to prioritize the goals of the target firm and may even compromise their interests to safeguard the overall interests of the target firm. Their behavior is also driven by the avoidance of confrontation and the preservation of harmony in negotiations. Additionally, collectivist negotiators are more inclined to employ a group decision-making model rather than an individual one, aligning with the interests of most stakeholders and safeguarding their concerns. These reasons are closely aligned with the theoretical tenets of Confucianism, which will be discussed further below. Therefore, it is posited that cultural similarities have a moderating effect on M&A deal values. All Confucianist countries should exhibit a similar pattern to China, given their shared cultural heritage. At the same time, other cultural factors can introduce conflicts of interest at various stages of M&A deals.

Confucianism and Its Effect on Business Operations

The East Asian cultural sphere, known as the Sinosphere, encompasses Greater China, Japan, Korea, and Vietnam. Historically, trade connections and the dominant position of Imperial China in the region fostered interactions among Sinospherical countries, which came to be linked by strong ideological and cultural roots, including Confucianism, Buddhism, and Taoism.

However, under the influence of globalization, the Sinosphere has witnessed a shift toward cultural regionalization. Borders between countries are fading as global flows of goods and services strengthen. Even consumer behavior is evolving towards a more "glocal" orientation, transcending national boundaries. The distinctive feature of the Sinosphere is that these processes are primarily intraregional, even though the region's borders remain fluid. As with any region, historical context and societal factors have deeply influenced the way people live, communicate, and conduct business. All these elements inevitably exert their influence on M&A deals, as the people who form the cultural foundation govern these companies, work within them, and participate in the negotiation process during M&A transactions.

Confucianism fosters cooperative relationships among individuals, emphasizing consideration for others and group harmony. However, it simultaneously hampers innovation and individual initiative [5]. Confucian social relationships are underpinned by specific guidelines, including:

1) The Golden Mean: Seeking balance and finding mutually satisfactory solutions in conflicts.

2) Generosity and Virtuousness: Treating others with kindness and justice to enhance overall welfare.
3) Harmony: Avoiding confrontation as the preferred solution.
4) Tolerance, Propriety, and Deference – the basic principles of social norms and moral standards.
5) Submission to Authority – a key to understanding power relationships.
6) Discretion for Self-preservation: Avoiding unnecessary involvement in others' affairs.
7) Pleasing Superiors: Demonstrating respect, obedience, and devotion to show loyalty.

Previous research suggests that, among Asian countries, these dominant principles exert varying degrees of influence on the communication process. In terms of factors affecting firm value, Confucianism has been found to impact creativity and innovation negatively [6]. It conflicts with creativity due to factors such as unquestioning obedience, authoritarian relationships, emphasis on humility and conformity, and more. Regardless of the creativity techniques employed or individual creativity levels, Confucianism tends to stifle creativity [7]. Innovation faces hurdles at all stages, from personal relationships to corporate social responsibility and business activities. Notably, Confucianism is significantly associated with lower levels of innovation activity. Moreover, state-controlled firms are a lot more affected by the Confucianist mentality [8].

Recent research also substantiates the impact of Confucianism on company performance. Confucianism legitimizes profit-seeking behavior in companies, thereby enhancing firm performance. Additionally, Confucianism can effectively improve the efficiency of supervision mechanisms while diminishing the marginal contribution of incentive mechanisms to financial performance [9].

ICT Development Under the Influence of Confucianism

Researchers have linked information and communication technologies (ICT) with firm performance through various mechanisms, including increased productivity [10; 11], enhanced efficiency [12], and overall performance [13]. ICT generally adds value by delivering cost savings, revenue enhancement, and new growth opportunities [14]. Previous studies have shown that both high and low levels of industry digitalization have implications for the innovation process following an M&A deal, with the effect being more pronounced in "low" digitalization companies due to the enforcement of technological conditions [15]. Technology enables a clearer assessment of deals, and its implementation enhances the transparency of post-deal performance, suggesting that deal premiums should decrease under the influence of technological development in Confucian countries.

Our analysis primarily focuses on countries in the Asia-Pacific region that meet the criteria of Emerging Market Economies (EME), including China, India, Indonesia, Korea, Malaysia, the Philippines, Taiwan, and Thailand. Additionally, the sample includes the Four Asian Tigers, which occupy a unique position in the region. Furthermore, Malaysia, Thailand, the Philippines, and Indonesia, often referred to as the "Tiger Cub Economies," have experienced steady growth, albeit at a slower pace than the Four Asian Tigers since the 1950s [16]. These countries exhibit distinctive developmental characteristics, characterized by a high level of digitalization coupled with steady economic growth[6]. The synergy between digitalization and cultural dominance in these countries in recent years may contribute to higher company valuations.

Given the multifaceted influence of Confucianism and the dynamic context of regional development characterized by significant innovative growth with a digital component, this study investigates the impact of Confucianism and digitalization on M&A premiums as a component of company value. In light of the literature discussed, the following hypotheses are formulated:

H1: Firms connected by a Confucian background tend to reduce M&A deal premiums due to a more equitable evaluation of businesses under the influence of Confucian virtues.

H2: Successful implementation of modern technologies decreases M&A premiums and leads to more accurate evaluations.

H3: Acquirers evaluate target companies from "Tiger" countries more favorably.

Methodology

Continuing from previous studies, the dependent variable in this work is Total Deal Value, serving as a proxy for measuring the true value (or market value) of the company. It includes acquisition premiums connected to factors like unlocking hidden value and managerial motives [2; 17].

Firm-level Factors

To account for the heterogeneity of firms involved in M&A transactions and the characteristics of specific deals, several firm-level variables are included in the model, as shown in Table 1.

[6] Digital development | Worldbank.

Table 1. Firm-level Factors

Variable	Description	Measure	Source
Deal year	The year when the deal was announced	–	S&P Capital IQ
Target Age [18]	The difference between the foundation year of the target company and the year of the deal	–	Calculations based on S&P Capital IQ
Percent Sought [19]	The percentage acquired during the deal or the proportion of the target shares that the acquirer intends to buy	%	S&P Capital IQ
Target Net Income (log) [18; 20–25]	Target/Issuer net income at announcement, historical rate. Logarithmic values are used in econometric analysis	USD$ million	S&P Capital IQ
Target Total Equity (log)	Target/Issuer total common equity at announcement, historical rate. Logarithmic values are used in econometric analysis	USD$ million	S&P Capital IQ
SIC codes [26; 27]	Dummy variable for evaluating the industrial belonging of deal participants. If the companies belong to the same group by two digits of the SIC code, they marked by 1, and 0 otherwise	Dummy	Calculations based on S&P Capital IQ

Country-level Factors

1. Network Readiness Index (NRI): Introduced in 2002, the NRI provides a forward-looking and holistic perspective on the application of ICT within national economies. The NRI is frequently cited by leaders from the public and private sectors and has been used by numerous countries to design ICT strategies [28]. It measures the progress of digitalization within countries and can serve as a metric to assess the impact on M&A deals. While various variables within NRI influence deals differently, the compound NRI may offer insights, despite the limitations suggested by Silva et al. [29].

2. Cultural Distance: To measure cultural differences between countries, Hofstede's cultural dimensions are employed [18; 30–33]. Cultural components are calculated based on the Compound Culture Index (CCI) methodology developed by Hamid Yeganeh [34]. Given that Hofstede's dimensions now include six, Debasish Roy's modification of the Hofstede Global Cultural Dimension Index (HCGCDI), based on the analysis of Hofstede's dimensions for 64 countries, is used to compute the CCI [35].

3. Geographic Distance: Similar studies have considered the distance between countries and its impact on trade and investments [31; 36].

4. Market Capitalization Component: This component is determined as the ratio of a country's market capitalization to its GDP. Used in previous research [37; 38] to measure market-seeking motives, it provides insights into the size and liquidity of the financial market, affecting a company's ability to attract financial capital and facilitating investment. Market-seeking motives, a component of the Eclectic Paradigm (OLI framework), are relevant here [39]. According to this framework, all transactions are evaluated to determine whether they are more beneficial than in-house investments [40]. It has been shown that market-seeking motives and similar factors affect foreign direct investments (FDI) in the Asian region [41]. Although this effect depends on the specification of the model, the authors conclude that it is generally positive and significant.

5. Economic Distance: This index measures the economic status difference between two countries [18]. It accounts for factors such as GDP per capita, the GDP deflator, and export and import as a percentage of GDP. The product of these components serves as a measure of economic status, while the differences between countries provide information about their economic distance. Economic distance can help to take decisions about high-risk deals [30].

6. Economic Freedom Index: Economic freedom is a significant factor in attracting FDI. It is associated with strong institutions, the rule of law, property protection, justice, and effective police [42]. Incorporating various factors used in earlier studies, the economic freedom index has been positively linked to profit margins and firm value [18; 43–45].

7. Corruption Perception Index: High levels of corruption can deter deals by increasing the opacity of local bureaucracy and raising the cost of doing business [46–48]. However, the negative impact of corruption diminishes in popular countries for FDI, which is known as the "helping-hand effect" [31].

Confucian Deals

Given our focus on analyzing the influence of Confucianism, it is important to identify the countries that are influenced by Confucian values. Based on the Inglehart-Welzel world cultural map, Confucian countries include China, Taiwan, Hong Kong, South Korea, as well as Singapore due to the strong influence of Chinese ideology there [49]. These countries are expected to be influenced by a broad syndrome of distinctive value orientations linked to socioeconomic development [50]. To measure the impact of Confucianism, two dummy variables are included: "Confucianism Deal," which accounts for deals exclusively between Confucian countries, and "Confucianism All," which observes the overall effect of deals involving at least one company labeled as Confucian (Table 2).

Table 2. Other Variables

Variable	Description	Measure	Source
GDP Growth [51; 52]	Annual percentage growth rate of GDP at market prices based on constant local currency	%	GlobalData
Real Interest Rate	Lending interest rate adjusted for inflation as measured by the GDP deflator	%	GlobalData
Patents	Sum of patents by residents and non-residents	–	WorldBank
Tigers	Dummy variable for target companies to see whether they belong to the Tiger country list	Dummy	–

Model Justification

A random effects model is employed as the econometric instrument. An explicit hierarchical model, as described in [53], could be likened to a state-space representation in which the observations within a system are individually modeled. In random effects, each level is conceptualized as a random variable stemming from an underlying process or distribution [54].

In a random effects model, explanatory variables are assumed to have fixed relationships with the response variable in all observations, although these effects may vary from one observation to another. Standard errors can be significant for fixed effects, while random effects allow the estimation of effects for time-independent variables. Random effects models can be estimated using generalized least squares methods [55; 56].

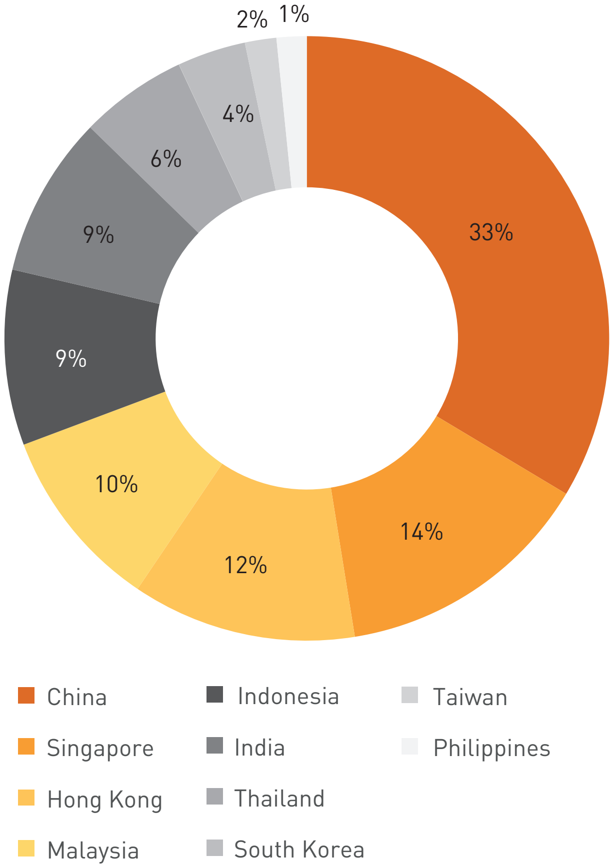
Modelling Results

Dataset Description

The dataset encompasses all closed cross-border M&A deals between the sample countries from January 1, 2002, to January 1, 2021. Notably, approximately one-third of the sample deals originate from China, and another third from the four first-wave Asian Tigers (Figure 1).

In terms of industries, the companies involved in the deals span various sectors. The most prevalent vectors for M&A operations are Industrials, Consumer Discretionary, and IT, although deals from all major industries are included, as illustrated in Figure 2.

Figure 1. Deals Structured by Country



During this period, a total of 2,677 deals were completed, with a mean deal value of $165 million. On average, acquirers acquired a 55% stake in the target companies. Additional descriptive statistics are provided in Table 3.

Figure 2. Industry Breakdown

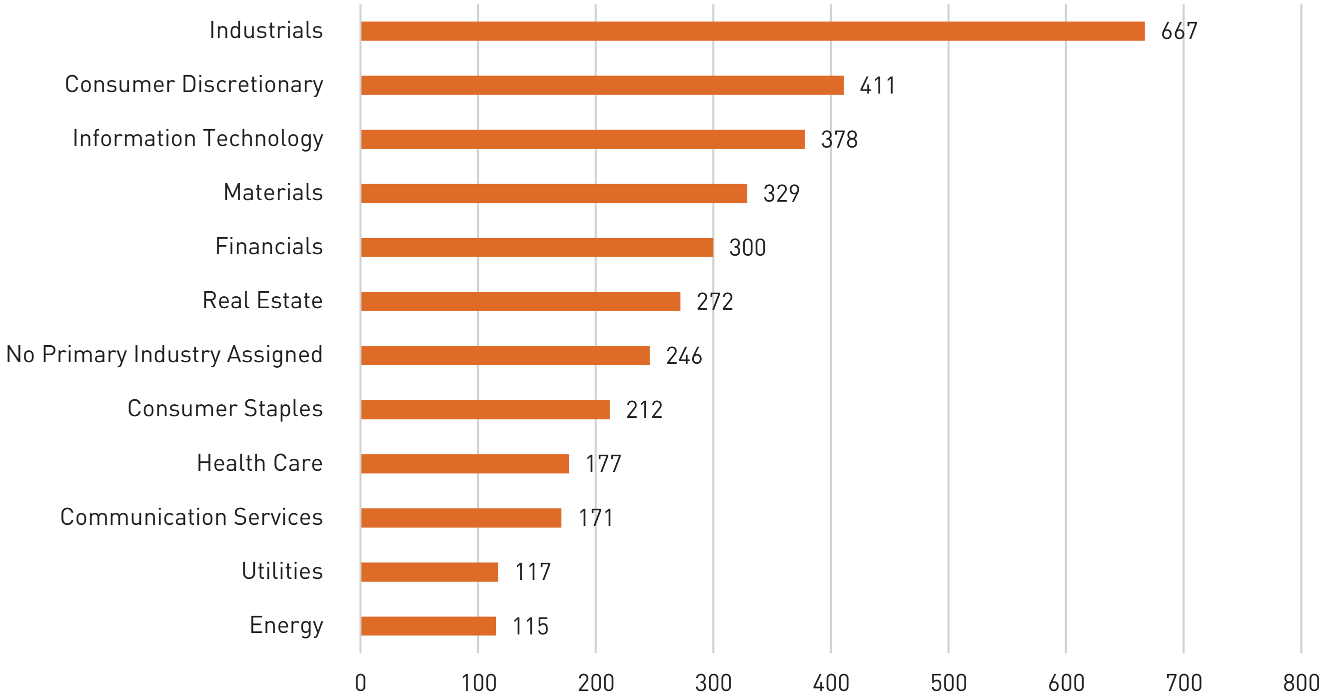


Table 3. Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Micro indicators					
Total Deal Value	2,677	165.14	1152.52	.001	35110.44
% Sough	2,640	55.06	35.42	.002	100
Target Net Income (log)	1,171	1.49	2.48	-6.91	10.15
Target Total Equity (log)	1,157	3.35	2.64	-5.81	11.71
Target Age	2,677	13.22	21.04	0	444
Size	817	5.21	2.38	.01	14.43
Indexes					
CPI	2,677	50.46	21.22	19	94
EFI	2,677	65.99	14.76	51	90.2
NRI	2,677	62.22	11.33	32.6	86.23
Market capitalization component	2,677	65781.53	130885.5	141.35	652587.4
Cultural Distance	2,677	.18	.13	0	.5
Geographic Distance	2,677	1.87	1.47	0	5.27
Economic distance	2,677	4.25	2.26	0	6.43
Macro indicators					
Patent	2,677	251302.2	412920.4	1873	1542002
GDP Growth	2,677	6.37	3.04	.12	14.53
Real Interest Rate	2,677	3.40	2.15	.03	12.32

Table 4. Correlation Matrix (Part)

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Size	1	1.00															
Confucianism	2	0.04	1.00														
Confucianism_all	3	-0.04	0.40	1.00													
GDP Growth	4	-0.02	0.21	0.11	1.00												
CPI	5	-0.01	0.13	0.24	-0.33	1.00											
EFI	6	0.00	0.01	0.15	-0.50	0.94	1.00										
Patent	7	0.04	0.49	0.19	0.23	-0.32	-0.45	1.00									
NRI	8	-0.05	0.10	0.21	-0.28	0.57	0.58	-0.15	1.00								
Cultural Distance	9	-0.01	0.30	0.37	0.22	-0.12	-0.19	0.23	0.03	1.00							
Geographic Distance	10	0.01	0.16	0.24	0.18	-0.13	-0.17	0.11	-0.13	0.60	1.00						
Direct Connections	11	-0.01	0.04	0.00	0.02	-0.10	-0.10	0.13	-0.07	-0.22	-0.71	1.00					
Market capitalization component	12	0.04	0.22	0.15	-0.34	0.67	0.74	-0.27	0.46	-0.12	-0.05	-0.11	1.00				
Tigers	13	0.01	0.21	0.21	-0.40	0.92	0.91	-0.35	0.56	-0.07	-0.08	-0.16	0.70	1.00			
Total Deal Value(log)	14	0.66	0.13	-0.02	-0.01	0.03	0.01	0.09	0.00	0.00	-0.01	0.00	0.05	0.05	1.00		
Target Net Income (log)	15	0.83	-0.03	-0.05	-0.10	-0.01	0.01	-0.02	-0.05	-0.05	0.01	-0.05	0.01	0.01	0.58	1.00	
Target Total Equity (log)	16	0.92	-0.01	-0.06	-0.08	-0.04	-0.02	0.02	-0.06	-0.03	0.03	-0.07	-0.05	-0.01	0.72	0.81	1.00

Correlation Analysis on M&A Deal Determinants

Table 4 shows a substantial positive correlation between Size (and the natural logarithm of assets) and the natural logarithms of deal value, equity value, and net income. This correlation is logical, as investors first pay for the assets of the target company in an M&A deal. The deal value cannot be less than the cost of the company's assets, as this would contradict the fundamental theory of the firm. The theory of the firm, rooted in neoclassical economics, posits that firms operate to maximize profits [57]. To this end, they ascertain the price and demand of products on the market and optimize resource allocation. Investments, in this context, represent resource allocation, and the result of any deal should ideally be profit maximization. Business assets hold value for a company because they are used to produce goods, fund operations, and drive growth. However, the final deal value is also influenced by other factors, including different evaluations from the perspectives of buyers and sellers, as well as hidden incentives to pay more (deal premiums). Given this correlation, the final model includes the logarithmic values of net income and equity.

As previously mentioned, a strong correlation was observed between the Corruption Perception Index (CPI) and the Economic Freedom Index (EFI). Further analysis revealed that this high correlation stemmed from the use of the Corruption Perception Index as a data source for calculating the Economic Freedom Index. Consequently, the Economic Freedom Index was included in the model, while the Corruption Perception Index was omitted. The preference was given to the Economic Freedom Index due to its broader description of the business environment at the country level, which can be crucial in analyzing M&A determinants.

Additionally, the Market Capitalization component, measured in accordance with GDP, displayed a high correlation with the CPI and EFI indexes. Since the linkage was similar, it was hypothesized that countries with high market capitalization tended to have higher ratings in these indexes.

Empirical Findings of Econometric Analysis

Table 5. Econometric modeling results

Variables	All	Equity based	both based	Percent out
Target Net Income (log)	0.2*** (0.04)		0.2*** (0.04)	0.15*** (0.03)
Target Total Equity (log)	0.69*** (0.05)	0.86*** (0.05)	0.69*** (0.05)	0.59*** (0.05)
Confucianism	–0.28*** (0.09)	–0.3*** (0.09)	–0.26*** (0.09)	0.29*** (0.05)
Confucianism_all	0.12 (0.17)	0.04 (0.18)	0.07 (0.18)	–0.12 (0.23)
Log_NRI	–0.17 (0.21)	–0.07 (0.27)	–0.09 (0.21)	
NRI				–0.001 (0.003)
Percent sought	0.03*** (0.003)	0.03*** (0.003)	0.03*** (0.003)	
Tigers	0.66*** (0.09)	0.57*** (0.16)	0.52*** (0.12)	
SIC similarity	0.13 (0.08)	0.08 (0.06)	0.14 (0.09)	0.28** (0.14)
Year	0.01 (0.01)	0.003 (0.006)	0.01 (0.009)	–0.02* (0.01)
Target Age	–0.003 (0.002)	–0.001 (0.003)	–0.003 (0.002)	–0.01** (0.002)
Patent	3.09e-07** (1.45e-07)	2.64e-07** (1.14e-07)	2.23e-07** (1.02e-07)	2.49e-07*** (6.77e-08)
Economic Distance	–0.03* (0.01)	–0.05* (0.01)	–0.03* (0.01)	–0.05* (0.01)
Market Capitalization Component	2.74e-07 (2.46e-07)	1.04e-06* (1.74e-07)	4.31e-07* (2.39e-07)	1.29e-06* (3.62e-07)
EFI	0.003 (0.01)	–0.02** (0.008)	–0.01 (0.008)	0.005* (0.003)
Geographic Distance	0.01 (0.02)	0.05* (0.02)	0.03** (0.01)	0.02 (0.05)
Cultural Distance	0.14 (0.33)	0.24 (0.36)	0.15 (0.31)	–0.16 (0.53)
Direct Connections		0.16 (0.12)	0.07 (0.11)	
Constant	–23.86 (26.32)	–5.43 (13.53)	–22.82 (19.70)	40.60* (23.15)
Observations	960	1,145	960	972

Variables	All	Equity based	both based	Percent out
No. of country	10	10	10	10
Within	0.6547	0.6657	0.6534	0.4717
Between	0.9031	0.8898	0.9357	0.8600
Overall	0.6591	0.6691	0.6581	0.4786

The initial model included all variables believed to impact firm value. However, certain variables were found to be insignificant and were subsequently excluded. Specifically, GDP growth and Real Interest Rate (RIR) were excluded due to their redundancy with other variables, particularly the Economic Freedom Index (EFI). Additionally, the Corruption Perception Index (CPI) was excluded due to its integration into the EFI.

The main variables in the model displayed significance. A robustness check was conducted on the data in the "all" variables model. The results of the Variance Inflation Factor (VIF) test indicated no multicollinearity in the data, except for CPI and EFI, which reinforced the decision to exclude CPI. Heteroscedasticity was detected using the Breusch-Pagan test, and to address this issue, errors were clustered by countries. Clustering errors by countries is justified by the similarities in socioeconomic background among observations within clusters, potentially increasing the statistical power of the model. Furthermore, statistical significance tends to increase with both an increasing number of clusters and an increasing number of subjects per cluster [58].

As expected, firm performance variables significantly increased company value. Among the country-level factors, the number of patents displayed a significant positive impact on deal value. This aligns with theoretical expectations, as a higher number of patents is indicative of a more technologically advanced country.

However, the Network Readiness Index (NRI) did not yield significant results, leading to the rejection of Hypothesis 2. It is worth noting that NRI measures only the overall impact and may be too broad to yield significant results. Therefore, further study is recommended, with a focus on breaking the NRI down into its subcomponents.

Regarding cultural distance measured with Hofstede's cultural dimensions and accounting for differences in culture among countries within the same region, no significant impact was observed. This lack of significance can be attributed to the cultural similarities among the interconnected countries in the region, resulting in a small and insignificant cultural distance. This partially supports Hypothesis 1 theoretically.

In direct support of Hypothesis 1, deals involving a Confucian background showed a negative and significant influence on transaction value, confirming the hypothesis's premise that Confucianism affects deal premiums. Additionally, deals in Tiger countries were significantly more highly valued. This suggests that companies operating in highly developed environments with access to advanced technologies tend to receive higher valuations. Geographic position and industrial structure, including high-tech manufacturing and finance, likely contribute to these results, supporting Hypothesis 3.

The "percent out" model, which omits the "acquired by buyer" amount, assumes full acquisition. While signs of variables may change in this model, they remain significant. (We connect this with the significance of the constant factor.) This underscores the robustness of the findings.

Hypothesis 2 was not confirmed, indicating that further exploration of the digitalization aspect is warranted.

Discussion and Practical Implications

The findings of this analysis have important implications for policymakers and businesses involved in cross-border M&A deals.

The study's confirmation of Hypothesis 1, which suggests that firms connected by Confucianism tend to reduce M&A deal premiums and evaluate businesses more fairly under the influence of virtues, highlights the importance of considering cultural factors in M&A processes. Policymakers can use this insight to develop policies that promote cross-border M&A deals by culturally similar companies, encouraging fairer deals and improving negotiation processes.

Hypothesis 3, which indicates that acquirers tend to evaluate target companies from "Tiger" countries higher, suggests that these markets are attractive for investments. Although the backwards effect is not investigated in this study, it is clear that investments from these countries are also highly attractive. Understanding these aspects in summary with other effects will be undoubtedly beneficial for all stakeholders.

Policymakers and regulators can also use the information about the evaluation process and price formation to prevent overpayments in M&A deals and decrease the risk of destructive takeovers [34; 59–62]. Cultural similarities such as Confucianism guarantees that all parties follow a similar action template. A clear shared vision helps to lower risks, decreasing both the deal price and the deal premium.

Conclusions

This paper offers a comprehensive exploration of the factors influencing M&A deals. Its distinctive feature is the analysis of the impact of a common cultural background of the companies participating in the deal, with a specific focus on the phenomenon of Confucianism. As per existing literature, business operations are linked to cultural attributes. The impact of culture on business operations becomes particularly evident in specific geographic regions, such as the Sinosphere. Within this region, countries form cultural clusters, essentially creating a glocal cultural entity. Cultures within these clusters share common characteristics, which evolve with each generation. In modern history, phenomena like the Korean wave or Hallyu have exerted significant influence on the Sinosphere, whose business ethics can be described as a blend of traditional values and Western ideals.

The cultural impact on deals is asymmetrical, leading to discounts, among other effects. Personal inclinations influenced by culture, particularly in collectivist countries, can decrease the value of premiums. Cultural similarities between parties involved in deals tend to reduce the overall value of M&A transactions.

The advancement of information and communication technology (ICT) has led to reduced costs, increased productivity, and new growth opportunities. Higher technological development facilitates innovation processes post-deal. However, the mere development of technology does not guarantee its effective utilization. Empirical findings support our assumption, yet further in-depth exploration of these topics could yield significant results.

This research addresses three key theoretical questions. Firstly, it investigates the influence of Confucianism on M&A deal value and premiums. M&A deal value and premiums tend to decrease when the parties share a similar cultural background, which helps to mitigate risks associated with cultural differences. Shared visions on fundamental issues often ensure positive prospects for new business entities. Secondly, due to the regional specificity, questions about the adoption of technology (or digitalization) in the Asian region have emerged. Technology enables a more transparent assessment of deals and post-deal performance, which should theoretically lead to a decrease in deal premiums. However, empirical studies do not support this hypothesis, potentially due to the generality of independent variables, suggesting the need to measure the network readiness index on different scales by dividing it into pillars. Thirdly, apart from the Confucian impact, we explore whether specific countries have a unique impact on deals. Irrespective of their size, certain countries can influence the culture of the Sinosphere, such as South Korea. These countries, often referred to as “Tigers,” share a Confucian background, which, combined with recent cultural dominance, could elevate the valuation of companies from these nations. Companies from Tiger countries tend to receive high evaluations, possibly due to factors such as economic structure, technological advancement, or geographical considerations.

The findings of this research provide new insights allowing policymakers and companies to tailor their decisions or update their understanding of the factors influencing the economy. Cultural identity is a complex variable, and distinctions exist even in culturally proximate regions. When the cultures of the participating countries are similar, elements like Confucianism can further deepen cultural connections and impact decisions both overall and at the deal level. Similar values foster trust between parties and safeguard the interests of company shareholders by mitigating additional risks.

Our study contributes to the existing literature by examining the combined effects of digitalization and culture on deal premiums. Unlike previous studies measured culture broadly by assessing cultural similarities or differences between deal parties or used cultural dimensions as proxies for cultural differences [4], we place particular emphasis on the specific role of a shared cultural background rooted in Confucianism. Moreover, in contrast to some studies that explored the influence of Confucianism on innovation outcomes [6] or the negative association between Confucianism and creativity [7], this research directly investigates how Confucianism affects deal premiums in the context of digitalization.

It is important to note that this study has certain limitations that warrant further investigation. The reduced sample size is due to constraints related to data availability. Additionally, the metric used to measure digitalization may lack precision, and further refinement could lead to a more accurate representation of the phenomenon. Future studies can overcome these limitations by expanding data sources and developing a more nuanced measure of digitalization, thereby enhancing the validity, generalizability, and potential insights of the findings.

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Appendix A

Correlation matrix

Table A.1. Correlation matrix of main determinants

	T_Value	Percent	SIC	Size	Year	T_age	A_age	Conf	Conf_all	RGDPG	RIR	CPI	EFI	Patent	NRI	Cult_D	Geo_D	Dir_Con	Econ_D	Mcap_ c~p	Tigers	country	logV	lNRI	L_T_Net	L_T_ Eq~y
T_Value	1.00																									
Percent	0.05	1.00																								
SIC	0.02	0.07	1.00																							
Size	0.36	-0.20	0.09	1.00																						
Year	0.01	-0.02	0.02	-0.05	1.00																					
T_age	0.10	-0.16	-0.04	0.24	-0.12	1.00																				
A_age	0.05	-0.11	-0.07	0.23	-0.13	0.17	1.00																			
Conf	0.04	0.10	0.08	0.04	0.04	-0.11	-0.20	1.00																		
Conf_all	-0.01	-0.01	0.02	-0.04	0.05	-0.08	-0.18	0.40	1.00																	
RGDPG	-0.03	0.02	0.07	-0.02	-0.39	-0.09	-0.04	0.21	0.11	1.00																
RIR	0.01	-0.02	0.00	0.05	0.08	0.04	0.04	-0.20	-0.07	-0.16	1.00															
CPI	0.03	0.09	-0.09	-0.01	0.08	0.03	0.05	0.13	0.24	-0.33	0.07	1.00														
EFI	0.03	0.06	-0.10	0.00	0.14	0.06	0.07	0.01	0.15	-0.50	0.05	0.94	1.00													
Patent	0.01	0.06	0.11	0.04	0.31	-0.16	-0.16	0.49	0.19	0.23	-0.14	-0.32	-0.45	1.00												
NRI	0.02	0.03	-0.05	-0.05	0.10	0.01	0.00	0.10	0.21	-0.28	-0.11	0.57	0.58	-0.15	1.00											
Cult_D	-0.01	-0.03	0.04	-0.01	-0.04	-0.08	-0.07	0.30	0.37	0.22	-0.10	-0.12	-0.19	0.23	0.03	1.00										
Geo_D	0.00	-0.02	0.02	0.01	-0.03	-0.08	-0.09	0.16	0.24	0.18	-0.01	-0.13	-0.17	0.11	-0.13	0.60	1.00									
Dir_Con	-0.01	0.03	0.04	-0.01	0.00	0.02	-0.02	0.04	0.00	0.02	-0.04	-0.10	-0.10	0.13	-0.07	-0.22	-0.71	1.00								
Econ_D	-0.02	-0.04	0.05	0.01	-0.04	-0.06	-0.21	0.21	0.44	0.14	-0.04	-0.19	-0.21	0.12	-0.09	0.28	0.23	-0.01	1.00							
Mcap_ comp	0.04	0.09	-0.06	0.04	0.12	-0.02	-0.01	0.22	0.15	-0.34	-0.05	0.67	0.74	-0.27	0.46	-0.12	-0.05	-0.11	-0.16	1.00						
Tigers	0.04	0.07	-0.09	0.01	0.05	0.05	0.04	0.21	0.21	-0.40	0.02	0.92	0.91	-0.35	0.56	-0.07	-0.08	-0.16	-0.21	0.70	1.00					
country	-0.02	-0.07	-0.08	-0.07	0.06	0.12	0.14	-0.45	-0.18	-0.49	0.01	0.32	0.44	-0.52	0.19	-0.21	-0.21	0.01	-0.14	-0.07	0.36	1.00				
logV	0.28	0.08	-0.01	0.66	0.07	0.22	0.11	0.13	-0.02	-0.01	0.00	0.03	0.01	0.09	0.00	0.00	-0.01	0.00	-0.13	0.05	0.05	-0.07	1.00			
lNRI	0.02	0.03	-0.05	-0.05	0.12	0.00	0.00	0.12	0.21	-0.27	-0.09	0.55	0.55	-0.11	0.99	0.03	-0.12	-0.06	-0.08	0.44	0.52	0.17	0.00	1.00		
L_T_Net	0.30	-0.28	-0.01	0.83	0.00	0.23	0.17	-0.03	-0.05	-0.10	0.07	-0.01	0.01	-0.02	-0.05	-0.05	0.01	-0.05	-0.06	0.01	0.01	0.04	0.58	-0.06	1.00	
L_T_ Equity	0.29	-0.33	-0.03	0.92	0.01	0.29	0.23	-0.01	-0.06	-0.08	0.02	-0.04	-0.02	0.02	-0.06	-0.03	0.03	-0.07	-0.08	-0.05	-0.01	0.06	0.72	-0.07	0.81	1.00

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