Resilience and risks of cross-border mergers and acquisitions

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Abstract

Purpose – In cross-border mergers and acquisitions (M&As), acquirers often fail to achieve the expectations they held when they made the M&A deals. This paper aims to propose that the risks of cross-border M&As can be mitigated by building and cultivating organizational resilience as a prime means of risk management.

Design/methodology/approach – The research examines risks associated with cross-border M&A and how such risks can be mitigated by developing resilience. It presents dual cases of acquisitions of the biggest branded mobile phone manufacturer in Taiwan.

Findings – The authors find that the acquirer faces multiple risks in cross-border M&A transactions, including financial, strategic and organizational, and process risks that arise from misalignment between the goal of the M&As and the post-acquisition performance of the target firms.

Originality/value – The research provides theoretical insights on organizational resilience and how it can mitigate the specific risks involved in cross-border M&As, thereby developing coherent organizational resilience processes.

Keywords Risk, Cross-border M&A, Organizational resilience, High-tech multinational

Paper type Case study

Introduction

Organizational resilience, defined as "the incremental capacity of an organization to anticipate and adjust to the environment" (Ortiz-De-Mandojana and Bansal, 2016, p. 1617), is an important element of maintaining well-being in challenging circumstances at the organizational level. As circumstances change, organizational resilience is viewed as a process capacity where firms continuously adjust to turbulent environments, respond rapidly and develop sources of competitive advantage, thereby improving their adaptability (Cooper *et al.*, 2013; Linnenluecke, 2015). Organizational resilience is particularly relevant where revolutionary structural changes or organizational changes occur in the competitive environment facing today's organizations. Specifically, as cross-border mergers and acquisitions (M&As) are inter-organizational encounters, resilience becomes increasingly useful as cross-border M&As are subject to several types of risk that are critical at different stages of the M&A process.

To manage risks, firms need to cultivate "resilient" cross-border M&As. Organizational resilience can facilitate managers to understand the organizational requirement involved in different types of cross-border M&A risk, including risk awareness, risk protection, and risk

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assessment so that such transaction investment decisions can be optimized (Barna and Nachescu, 2014). While the research of both organizational resilience and cross-border M&A risks is of growing interest, these two streams of research have largely remained separated to date. Given that cross-border M&As face unprecedented expectations related to their longevity, little is known about the implications of organizational resilience in managing cross-border M&A risks.

In high-tech industries, cross-border M&As play a critical role in most multinational enterprises' (MNEs) foreign market entry strategies. Cross-border M&As are known as one of the quickest routes to access new markets or gain new resources and capability, thus expediting the firm's growth strategy in terms of the scale and scope (Liu and Woywode, 2013). An acquirer expects to create value and synergy by acquiring the target firm. Although recent studies in the international business (IB) literature have examined the risks in cross-border M&As (Chakrabarti *et al.*, 2009; Sinkovics *et al.*, 2015), most focused on the institutional and cultural constraint and the post-merger integration between acquirers and target firms, thus highlighting M&A pitfalls. However, cross-border M&As are often characterized by a high level of risks that can lead to failure or significant financial losses in realizing their expected potential (Gomes *et al.*, 2013; Vahlne *et al.*, 2017). Compared to domestic M&As, cross-border M&As are much more complex as acquiring and target firms are located in different geographical locations. This complexity introduces high risks resulting from different institutional settings such as political, economic, culture, rules and regulations (Gubbi, 2015; Oetzel and Oh, 2019; Zhou *et al.*, 2016). Consequently, these challenges can potentially increase transaction costs when conducting cross-border M&As.

Although cross-border M&As are accompanied by considerable investment and high risks (King and Schriber, 2016), M&A activities have become increasingly prevalent in recent years. As an important source of growth and diversification, the investment of cross-border M&As with total value of more than a trillion USD reached its peak in 2007 (UNCTAD, 2012). By 2012, the value of transaction has been continuously growing, and despite the economic crisis the value of cross-border M&As has reached more than US $2.2tn. Despite the explosive growth of cross-border M&A activities, especially in high-tech industries, extant empirical studies show that M&A deals often turned sour as many acquirers failed to achieve their financial or strategic goals due to poor post-merger integration process, cultural distance, realignment of resources and so on (Gomes *et al.*, 2013; Sinkovics *et al.*, 2015). Indeed, more than half of such transactions end up unsuccessfully (Barna and Nachescu, 2014) or fail to improve performance of acquirers (King and Schriber, 2016). In light of the increasing significance of the phenomenon, scholars have begun to devote attention to the high failure rate of cross-border M&As, which in turn has led to calls for theoretical development (Gomes *et al.*, 2013; Reus and Lamont, 2009), indicating the importance of managing "risks" involved in cross-border M&A activities.

This study asks the following research question:

RQ1. What are the risks entailed in cross-border M&As of high-tech firms, and how these firms mitigate such risks by developing resilience?

We identify types of risk (*i.e.*, financial, strategic and organizational, and process) associated with cross-border M&As and how organizational resilience facilitates the mitigation of these types of risk. To this end, we attempt to provide a conceptual understanding of the ways by which organizational resilience facilitates the management of risks associated with cross-border M&As. In addition, this paper seeks to better understand the link between resilience and risk management. For this research, we are concerned with the acquirer's perspective on the resilience process in their M&A deals rather than the acquiring firm's view.

Specifically, using the form of a comparative dual case study design, this research analyzes the two cross-border M&A deals conducted by HTC Corporation (HTC) in the mobile phone industry during the period from 2010 to 2011. This research adopts an exploratory approach from a case study comprising a combination of secondary interviews and archival sources. HTC is the biggest mobile brand manufacturing MNE based in Taiwan. Taiwanese high-tech MNEs, including HTC, have been actively engaging in foreign direct investment (FDI) (Hsu *et al.*, 2013) and recently HTC has been confronted by severe competition with foreign MNEs. HTC has also faced a financial problem of high risk and low profit margins due to the shortening life cycle of main products, upgraded high frequency technologies, heightened time-to-market pressures, and rapidly changing consumer behaviors with intense rivalry in the industry (Lew *et al.*, 2016). High-tech industries are inherently rapidly moving, which provides appropriate contexts for examining organizational resilience in challenging conditions of cross-border M&As. Given the competitive environments, HTC was under intense pressure for a strategic solution to break through, and it acquired seven foreign high-tech firms during 2010 to 2011. In light of challenges faced by HTC, our analysis of the cross-border M&As of HTC present a structured approach to analyzing the risks embedded in cross-border M&As.

This research makes two important contributions to the research on cross-border M&As and organizational resilience. First, it conceptually frames the risks of cross-border M&As based on capital market, strategic and organizational, and process perspectives (Haspeslagh and Jemison, 1991). This integrative approach provides a holistic lens to investigate the risks in cross-border M&A cases of high-tech MNEs. Second, viewing resilience as the firm's path-dependent capacity (Ortiz-De-Mandojana and Bansal, 2016), the research identifies the high-tech firm's risk factors in the context of the cross-border M&A process. Thus, it provides some of useful solutions for developing coherent organizational resilience processes, thereby mitigating those risks.

Literature review

Resilience in cross-border M&As

Resilience, the ability to bounce back from setbacks effectively, is important to individual and organizational positive functioning (Carmeli *et al.*, 2013; Khan *et al.*, 2017; Stephens *et al.*, 2013). As such, positive functioning, also known as well-being, is associated with "optimal functioning and experience" (Ryan and Deci, 2001, p. 142). Being resilient involves endurance, which also means rapid recovery from various types of adversity (Linnenluecke, 2015). Previous research on resilience has focused largely at the individual level (Angwin and Meadows, 2015; Carmeli *et al.*, 2013). Scholars have begun to devote attention to resilience at the organizational level as a critical part of organizational well-being, specifically in high-velocity environments (Guest, 2017). In the particular context of high-tech industries amid technology breakthroughs and rapidly changing environment, the role of resilience becomes even more relevant. There is an agreement on the increasing importance of resilience in light of complex structural and process challenges of M&A activities (Linnenluecke, 2015). Although cross-border M&As are not unplanned or unexpected events, these activities are often perceived as inherently risky investment decisions (Barna and Nachescu, 2014; Vahlne *et al.*, 2017).

The inherent risky nature of cross-border M&As simply results from the lack of knowledge that acquirers have regarding the business they pursue. In this circumstance, an emerging country MNE tends to possess little prior M&A experience or knowledge, which could act as a barrier to attaining a positive outcome from such transactions. Here, resilience can help build an experiential learning process and organizational capability in cross-border

M&As through continuous learning, both at the organizational level and the individual level (Hamel and Valikangas, 2003). From an organizational learning perspective, the organizational success depends on their capacity to continuously learn from their past experiences (Carmeli and Gittell, 2009). As a critical component of well-being, resilience is the key to enabling learning processes that involve continuous examination of the environment to sense and interpret knowledge effectively over time (Ortiz-De-Mandojana and Bansal, 2016).

Organizations with accumulated prior M&A experience or activity help managers to develop organizational M&A capabilities and thus tend to perform better at integrating firms during the M&A process (King and Schriber, 2016). Beyond mitigating risks associated in cross-border M&As, resilience can facilitate the firm to obtain expected synergies by learning how to deal with risks or disruptions more effectively. Mitigating the risks in cross-border M&As, firms therefore need to become resilient, which depends on attitudes to risk developed from prior experience and prior foreign investment (Dai *et al.*, 2017). However, other theoretical accounts within the organizational learning domain on prior experience and M&A performance has suggested negative outcomes or follows an inverted U-shaped effect (Galavotti *et al.*, 2017).

Given the diversity in their cross-border M&A processes, investment decisions need to be taken after thorough assessment and examination of the specific strategic goals, size and characteristics of the target firms and industry, as well as national institutional systems and environments. The size of organizations involved in cross-border M&A deals often varies. Typically, as firms grow more complex and acquire those characteristics commonly found in large organizations or MNEs, they tend to become less resilient. Therefore, to remain resilient, MNEs require further resilience assessment and management to achieve their value-creating potential. While there is no one way to become a resilient firm, research suggests that building and developing the foundation to become a resilient firm requires a complete understanding of its environment and industry setting, designing and producing strategic options and readjusting its resources accordingly (Hamel and Valikangas, 2003; King and Schriber, 2016). In industries where the competitive landscape is shifting rapidly, this paper attempts to better understand the link between cross-border M&A risks through the concept of resilience. Through resilience, we consider how specific risks in cross-border M&As can be better managed to gain a positive outcome, to which we turn next.

Types of risk in cross-border M&As

Risk refers to the threat or probability of any negative impacts caused by external or internal vulnerabilities (Fischhoff *et al.*, 1984), which is an object concept that can be measurable, thus avoidable through preemptive actions. However, risk entails a certain degree of uncertainty, where risk is an "exposure to a proposition of which one is uncertain" and uncertainty is "a state of not knowing whether a proposition is true or false" (Holton, 2004, p. 22). Hence, risk is avoidable but does induce a certain level of uncertainty. Within the cross-border M&A context, a significant body of empirical research in IB, finance, and strategic management consistently shows the high failure rate of these transactions, which indicates the risky aspects in managing cross-border M&A process (Barna and Nachescu, 2014; Gomes *et al.*, 2013; King and Schriber, 2016). In the process of cross-border M&As, these activities are typically associated with various incompatible day-to-day operations and processes. Several theoretical accounts of cross-border M&As have been proposed but they have remained typically separate. Two common streams of research on the risks of cross-border M&As have taken either a financial markets perspective or an organizational behavior perspective. Extant studies on the M&A risks take different theoretical underpinnings, and central hypotheses, such as financial, strategic and organizational, and process perspectives (Birkinshaw *et al.*, 2000; Haspeslagh and Jemison, 1991; Zakaria *et al.*, 2017).

First, the financial market dimension of M&As is viewed as primarily financial transactions in terms of whether M&As can create value for the shareholders of both acquired and acquiring firms, based on financial and organizational economies views of the firm; thus, profit maximization of the shareholders of the target firm is the primary concern (Jarrell *et al.*, 1988). Financial risk impacts directly on a firm's financial performance, which reveals that an M&A deal brings financial risk to acquirers. The financial risk in M&As is typically incurred from currency price volatility, commodity price fluctuations, and interest rate changes (Fraser and Simkins, 2010). These kinds of risk are influenced by various factors such as financial analysis in pre-acquisition, accounting evaluation method, net present value, internal rate of return, historical financial, and form of payment (Lu *et al.*, 2007). Specifically, among the financial risks in M&As, managing payment and valuation is critically important from the acquirer's perspective (Rappaport and Sirower, 1999). Overpayment risk is related to the valuation of a target firm and has been widely discussed in the M&A literature (Dobbs *et al.*, 2007; Haunschild, 1994; Rossi and Volpin, 2004). Overpayment in an M&A deal is related to the acquisition premium for an acquirer to lock-in or inter-lock a target firm (Haunschild, 1994). For instance, Dobbs *et al.*'s (2007) longitudinal study on M&As reveals that acquiring firms historically tend to overpay the price of acquisition premiums[1] to target firms. Although the synergy of M&As may not be evident in the short-term, shareholders may value the M&A deal based on the change of the stock price (Bruner, 2002). In addition, loan commitment, due diligence and international exchange rate affect whether the acquirer is exposed to the risk of overpayment (Shimizu *et al.*, 2004).

Second, the strategic and organizational management perspective focuses on performance implications of M&As, which includes factors that may result in the acquisition failure in the context of the organization's strategic management. Drawing on the industrial organization literature, some scholars argue that an acquiring firm can improve performance from a related acquisition deal in that it helps the acquirer to achieve economies of scale and scope and increase market power (Kamien and Zang, 1990; Nocke and Yeaple, 2007). Other scholars conceptually use the resource and behavioral theory of the firm (Nadolska and Barkema, 2007; Zakaria *et al.*, 2017). Such streams of research focus on different structural and organizational resources (*e.g.*, slack resources, business relatedness, pre-acquisition experience and resource compatibility), which may cause strategic and organizational management related risks such as new resource combination and integration between the acquiring and acquired firms (Brueller *et al.*, 2014).

Especially, the behavioral theory of the firm focuses on non-market factors such as sociological, psychological, and political factors that may govern the firm's risk orientation, organizational strategies, and performances both in the internal and external environments (Zakaria *et al.*, 2017). These non-market factors can affect how the firm deals with risks and utilizes performance feedback from its prior cross-border M&As. In this strand of cross-border M&A literature also discusses organization and human related topics around the relationship between the M&As and well-being such as training (Aguilera and Dencker, 2004), leadership (Avery and Bergsteiner, 2011), and employee emotion (Khan *et al.*, 2017; Tonkin *et al.*, 2018). These dimensions illuminate behavioral implications at an organizational level emphasizing the importance of effective communication and the shaping of a new organizational identity, despite the challenge of combining two apparent different organizations (Mirvis and Marks, 2003).

The unique characteristic of cross-border M&As is that it involves various forms of country risk that arise from differences in culture, policies, geography, currencies, economic structures and socio-political institutions between the two countries of the acquiring and acquired firms. These institutional and cultural risks could be sources of risk in M&As and may present additional challenges of organization integration (Chakrabarti *et al.*, 2009; Gomes *et al.*, 2013; Kwok and Reeb, 2000). For instance, Kwok and Reeb (2000) argue that projects undertaken in emerging countries have higher risks, including labor, political, customer and infrastructure risks, due to a volatile environment. Conversely, developed countries have well-defined legal systems, stable governments and transparent financial statement and, thus, acquirers investing in these countries incur fewer political and legal risks and other factors caused from unstable government.

Finally, the process-based perspective illuminates managerial actions taken in the acquisition process and reveals how value can be created after acquisitions that include learning and knowledge integration process. In addition, institutional and cultural factors may hinder post-merger integration process in cross-border M&As (Chakrabarti *et al.*, 2009; Gomes *et al.*, 2013; Sinkovics *et al.*, 2015), which requires organizational resilience to generate synergies from the M&As (Khan *et al.*, 2017). As such, following the process-based perspective, it is imperative to identify and manage inappropriate processes involved in cross-border M&As, such as analyzing of target firms and due diligence, overpayment, operation, and patent-related risks. Operational risk indicates the risk arising from operating choices when managers actually execute the firm's strategy. As M&As are one of the key strategic instruments for corporate strategy, it is of crucial importance to identify the factors influencing poor performance of M&As. Mankins and Steele (2005) suggest factors such as inadequate resources, poorly communicated strategy, not clearly defined actions, unclear accountabilities for action, silos and culture blocks, inadequate performance monitoring, inadequate rewards and poor senior leadership. In cross-border M&As, acquiring firms may face more challenges on operation risks than target firms as the former manage differences in national/organizational cultures, management process and routines, and integrating and aligning organizational capabilities and various resources between two entities (Sinkovics *et al.*, 2015; Zakaria *et al.*, 2017). Thus, in the post-merger integration process, overcoming these operational risks is critically important for the acquiring firm (Gomes *et al.*, 2013).

In taking the above perspectives, the success of and value creation from an M&A deal depend on how the firm manages distinctive types of risk residing in the cross-border M&As. To be resilient, firms engaging in cross-border M&As need to mitigate the risks in the M&As so as to achieve the expected synergic effects.

Methods

Dual case design

Organizational resilience relates to firms' business operations in unexpected situations or vulnerable environments that present both internal and external forms of adversity. In competitive markets, high-tech industries operate in these environments due to the shorter life cycle of products and technologies, as well as the growing demand to make prolific product lines (Brueller *et al.*, 2014). This trend is reflected in the increasing number of cross-border M&As in high-tech industries, which sets an appropriate context for examining organizational resilience in industries of uncertainty and high-velocity. This research is to understand and gain insights from risks facing high-tech MNEs when they form cross-border M&As in the context of the mobile phone industry. Aa the uniqueness of examining the risks of cross-border M&As within a firm is hard to study outside its natural setting and the variables are hard to quantify, this research adopts a case study design employing a qualitative research approach.

Case selection

This study takes a retrospective perspective in an exploratory manner which enables identification of indicative processes of phenomena drawing on all relevant data over time (Golder, 2000; Perchard *et al.*, 2017). All available data and evidence are critically or skeptically examined (Golder, 2000). Employing the retrospective perspective, we undertook a dual case study design, within we studied the two cross-border M&A cases conducted by Taiwanese high-tech MNE of HTC in 2011. This approach allowed us to identify common patterns among two cases by using comparative logic, thus obtaining theoretical insights through dual case data analysis (Eisenhardt, 1991). Also, dual cases can establish external validity. For this, secondary data such as industry publications, scholarly journals and press reports were reviewed to theoretically sample appropriate cases. We purposively selected two acquisition deals conducted by HTC in 2011 to provide a basis for examining organizational resilience in managing the risks of cross-border M&As and for generating the conceptual framework to guide further research.

HTC is the largest branded company in the mobile phone industry in Taiwan. It was founded as Original Equipment Manufacturers (OEM) and manufactured mobile devices for brand companies; however, it has transformed into a branded company and sold mobile phones and tablets under its own brand name. During the period from 2010 to 2011, HTC actively conducted a series of M&A investments and formed seven major cross-border M&As with deal values ranging from US$13m to US$700m. However, some of these acquisitions are unlikely to achieve expected synergies and even caused serious financial losses to the acquirer. Here, we intentionally chose the two highest-value acquisition deals conducted by HTC (i.e. 3G Graphics and Beats Electronics) to investigate the risks in cross-border M&As.

Data collection

We used multiple sources of evidence for data collection to analyze the risks of cross-border M&As in the mobile phone industry in Taiwan. For the two chosen cases, sufficient public data were available and we collected secondary data from reliable archival database, companies' official websites, magazines, news clips and press coverage, including interviews with CEOs. This enabled us to study the M&A process through an understanding of the risks in the cross-border M&As, thus facilitating a deeper understanding of the organizational context.

We cautiously selected the sources of secondary data to ensure the reliability and validity of the research findings. To gain a clear picture of the background to both acquiring and target firms, we investigated the case firms' official websites and newspapers to identify transaction information of the deals and general shareholders meeting logs and periodic financial reports. We investigated the historical stock price through the website of the Taiwan Stock Exchange (TWSE). In addition, we collected secondary data from several databases such as United Nations Conference on Trade and Development's (UNCTAD) global trade and M&As, SDC Platinum™ cross-border M&A data, and Thomson One Banker M&A deal activity. Also, essential data on regional and global market share were obtained from International Data Corporation (IDC). The Factiva database was used to collect news sources, including stock exchange feeds and investment analysis. In the process of complementing the above secondary data, we have taken a unique approach to collecting interview data from secondary data sources, including news clippings from CNET, the Wall Street Journal and Bloomberg, and other leading business magazines. We triangulated the data from various sources and investigated the interview data of seven previous and current C-level managers of HTC (see Table I).

Data analysis

We structured our data analysis following the method described by King's (2004) thematic analysis of qualitative data which helps to thematically organize and analyze textual data. This study sought to understand and gain insights on organizational resilience and how these resilient processes interact to mitigate the specific risks factors involved in cross-border M&As in the context of the mobile phone industry. The notion of organizational resilience helps to obtain a deeper understanding of risk management in cross-border M&As (Williams and Shepherd, 2016). We began by investigating the literature on resilience and cross-border M&A risk management. We produced a list of codes representing the themes identified in the literature in a hierarchical coding structure (King, 2004). Such hierarchical coding allows clarity in organizing and interpreting the textual data with groups of related codes clustered collectively (King, 2004). The process of conceptualizing and coding of data identified associations amongst coding categories using the microanalysis approach (Strauss and Corbin, 1998).

To yield more generalizable insights, this research used pattern matching and logic model to analyze the collected data, which include documentary data, data including television documentaries, news clippings, and industry information from company's official websites from both Taiwan and the US. Furthermore, cross-tabulation was applied to the transactional data from the databases to support the financial analysis. Regarding the secondary interview data, respondents from HTC underwent semi-structured interviews in Chinese with Taiwanese journalists and in English with foreign journalists. Thus, the interview data in Chinese were translated into English by bilingual professionals. We rigorously used pattern matching and logic model as techniques to analyze the data. Pattern matching compares empirical patterns with predicted ones (Trochim, 1989; Yin, 2004) which can strengthen the internal and external validity of the case analysis when the patterns coincide. Thus, we used this technique to examine each case as a separate entity with a unique pattern that can be generalized across cases. Based on the cross-case analysis, we identified the most prevalent types of risk in cross-border M&As.

Findings

M&A development in Taiwan and HTC

The development of domestic and cross-border M&As in Taiwan has different phases. Domestic M&As developed only after the government announced the Business Mergers and

Table I.
List of interviewees from secondary data sources

Interviewee code	Position of interviewees
A	President of HTC
B	CEO and President of HTC
C	President of HTC China
D	Previous CMO of HTC
E	Previous CFO of HTC
F	President of North Asia Operations of HTC
G	Product Executive of HTC

Acquisitions Act in 2002, while cross-border M&As had been developed since 1989 after the Taiwanese government liberated Foreign Exchange Control. In the first wave of the cross-border M&A phase, most of the transactions failed to achieve the expected financial, commercial or strategic objectives. The second wave of cross-border M&As occurred in the last ten years. The Business Mergers and Acquisitions Act in Taiwan (Ministry of Economic Affairs, 2004) defines M&A as four business activities, including "merger, consolidation, acquisition and division of a company"[2]. Based on the Commerce Industrial Service Portal, R.O.C, the number and value of M&As fluctuated during the period from 2005 to 2010. Table II shows that mergers have dominated the M&A activities in Taiwan. UNCTAD (2012) provides further information specifically for 153 cross-border M&As in Taiwan from 2005 to 2011. Cross-border M&As represented 12 per cent of total M&A activities in Taiwan. Table III shows the value of net sales and the total value of net sales of Taiwanese cross-border M&As from 2005 to 2011.

The case study presents HTC's two acquisitions of Beats Electronics and S3 Graphics. It shows that HTC was motivated by the target's market position in foreign countries, technology and patents to make cross-country M&As. The case reveals that both post-acquisition performances were poor, with the acquirer failing to achieve its goals and expectations on the acquisitions. The failure resulted in huge financial losses to the acquirer, indicating the risks in cross-country acquisitions.

In 1997, HTC was established in Taiwan as OEM, which manufactured notebooks for branded companies. HTC successfully transferred to a branded company in 2006. In April 2010, HTC closed at NT$1,020 (HTCXF, 2498. TW), which was the second stock having valued at over a thousand dollars closing price in the Taiwan Stock Exchange (TWSE, 2010). Further, HTC had promoting growth on operating revenue to US$9m in 2010 from US $4m in 2009 (Orbis, 2011). HTC had a market share of 8.4 per cent in the world smartphone market and had revenue growth of 89 per cent in 2010 (Euromonitor, 2010). The primarily sales region was North America, with more than 11 million units sold, followed by Western Europe at around 5 million units. In terms of company structure, HTC had nine main functions with over 16,000 employees by 2012.

Year	Type	Mergers	Acquisitions	Share exchange	Division	Total
2005	Number	196	10	10	29	245
	Value	36.54	0.76	13.98	12.74	64.02
2006	Number	181	2	3	17	203
	Value	118.8	0.19	0.88	6.63	126.5
2007	Number	173	2	3	19	197
	Value	82.76	0.64	1.17	11.71	96.28
2008	Number	180	2	5	29	216
	Value	19	0	98.97	29.93	147.91
2009	Number	156	1	4	24	185
	Value	27.5		2.08	4.84	34.42
2010	Number	151	1	4	33	189
	Value	42.15	0.04	8.84	28.89	79.91
Total	Number	1247	42	50	184	1523
	Value	388.99	9.79	188.27	113.94	700.93

Note: Unit (value): US$m
Source: Commercial industrial services portal

Table II. Number and value of cross-border M&As by type in Taiwan from 2005 to 2010

HTC has mainly manufactured smart devices such as smartphones and tablets with Android operating system (OS) from Google and a few with Microsoft Windows 8 OS. Although HTC successfully pushed its brand into global markets, it has faced strong competition from Apple, Samsung, Sony, Nokia, ZTE and LG in the mobile phone industry. HTC was a latecomer in the mobile phone market, having lost its opportunity to get in on the ground floor; however, it has been a pioneer for applying advanced technologies in mobile phones. HTC launched the first smartphone with windows OS in 2002, the first 3 G smartphone in 2005, and the first 4 G smartphone in 2010. HTC intends to provide consumers with more entertainment and enjoyable life through its mobile devices and has rooted its slogan of being "quietly brilliant" into corporate culture. HTC has focused on developing its intelligence terminal by making technological efforts in the design of mobile phones based on customer needs.

Apart from its core business of manufacturing mobile phones, HTC conducted a series of M&As between 2010 and 2011, including seven cross-border M&As. The acquired firms were Abaxia, Saffron Digital, OnLive, S3 Graphics, Dashwire, Beats Electronics, and Inquisitive Minds. Abaxia is a French software developer for mobile devices and handset manufacturer. Saffron Digital is a digital entertainment company in the UK which focuses on developing multi-DRM and Online Video Platform. Other firms such as Onlive, S3 Graphics, Dashwire, Beats Electronics and Inquisitive Minds are based in the US. OnLive specializes in cloud computing video games and S3 Graphics focuses on computer graphics. Beats Electronics is an audio product producer and Inquisitive Minds is a child application developer. Table IV illustrates the seven foreign IT firms that were acquired by HTC between 2010 and 2011.

Acquisition strategy has continued in 2012. President of HTC China indicated that the growth of patents is a long journey since HTC has only sold mobile devices under its own brand for few years. Compared with Apple and Samsung, HTC is a young brand manufacturer in the smartphone industry, and the lack of patents is one of HTC's weaknesses. President of HTC China (Interviewee C) stated there are only two ways to improve weakness in international patent litigation:

> One is to have long-term investment on R&D; while another one is to obtain patents through forming M&As (Linkshop, 2012).

Regarding the M&A strategy, the HTC president stated:

> Valuable technology possessed by a target is the main determinant for leading HTC to form an M&A (Viachinaheart, 2012).

Particularly, it is important for HTC to secure highly innovative technological competence to compete in the market. Thus, HTC intended to strategically internalize technologies through

Table III.
Net sales and purchases of cross-order M&As in Taiwan from 2005 to 2011

Year	2005	2006	2007	2008	2009	2010	2011	Total
Net sales								
Number of deals	20	28	27	35	6	23	14	153
Size (US$m)	3,110	4,798	6,770	1,356	−429	399	−2,216	−30
Net purchases								
Number of deals	10	3	10	21	25	21	13	103
Size (US$m)	554	14	949	−993	552	−506	645	1,215

Source: UNCTAD (2012)

a series of M&A activities. HTC believed that controlling its own core technologies could solve the problem of insufficient patents whilst improving the technological capabilities for innovative product development.

Case A: HTC's acquisition of beats electronics

Strategically rebuilding brand image. Among the seven cross-border M&As made by HTC during 2010 to 2011 (Table IV), the acquisition deal between HTC and Beats Electronics was chosen as Case A. Beats Electronics is a Californian producer of audio devices with around 150 employees. The President of Beats Electronics is a music producer who successfully produced music albums. His personal reputation and achievements in the music industry became a great promotion for the products of Beats Electronics. Before being acquired by HTC, Beats Electronics already cooperated with several partners who have electronic devices with headphone plugs, including laptops from Hewlett-Packard and car audios from Chrysler. By combining with different devices, Beats Electronics penetrated its products into different market segments. With its experience of laptops and car audios, Beats Electronics targeted the mobile phone market to diversify its market segment, and chose HTC as a strategic partner. Regarding the alliance, the chairman from Beats Electronics stated:

> [...] a critical step in our continued mission to clean up the destruction of audio caused by the digital revolution and reengineer how sound is delivered (HTC, 2011d).

In August 2011, HTC announced that it had invested US$309 million to acquire 51 per cent of Beat Electronics' shares. HTC emphasized that although it acquired major shares from Beats Electronics, Beats Electronics still operated independently. Beats Electronics sold its audio products under its own brand. After the acquisition, HTC launched several smartphone models, including HTC Sensation and Resound with ear phones of Beats Electronics.

However, the partnership did not last long. In July 2012, only ten months after announcement of acquisition, HTC released an official statement saying that it sold a 25.43 per cent stake back to Beats Electronics, thus reducing its holding stakes of Beats Electronics to 25.57 per cent and changed the investment mode from major acquisition to minor equity investment. Additionally, HTC no longer produced Beat's version phone and only cooperated with Beats Electronics on audio technology. Although HTC asserted that the changing investment *"provides Beats Electronics with more flexibility for global expansion while maintaining HTCs major stake and commercial exclusivity in mobile"* (Engadget, 2012), HTC lost US$4.87 million on book value due to differences in exchange rates. In addition to cash loss, HTC's stock dropped by 200 points, which reduced HTC's

Target firm	Nation	Industry	Announce date	Size of the deal
Abaria	France	Software (mobile)	Jun. 2010	11 million Euros
Saffron Digital	UK	Videos (mobile)	Feb. 2011	US$48.6m
OnLive	US	Gaming software	Feb. 2011	US$40m
*3G Graphics**	US	Computer graphics	Jul. 2011	US$300m
Dashwire	US	Software (online)	Aug. 2011	US$18.50m
*Beats Electronics**	US	Headphone	Aug. 2011	US$700m
Inquisitive minds	US	Software application	Oct. 2011	US$13m

Note: *Indicates the case firm's acquisitions in this study

Table IV. The list of cross-border M&As conducted by HTC from 2010 to 2011 market value by around US$1bn after the announcement. When HTC decided on the acquisition, it claimed that the objective of the deal was to improve the audio performance in terms of music, gaming, and video on HTC's own mobile phones. It has strived to provide consumers with higher quality phones. Furthermore, HTC viewed audio as a critical part of that experience and appreciated the audio products and quality provided by Beats Electronics. Related to this, the HTC CEO mentioned:

> Beats Electronics has found a unique way to harness popular culture in a manner that is unlike any other brand today. It's an exciting brand that has been built around providing something very special, and we believe our strategic partnership will provide customers with unbeatable sound on HTC phones (HTC, 2011c).

HTC thought that consumers care about how a product can help them and HTC aims to help consumers to have a more fashionable and stylish life. Since the company has exerted great effort to shape itself as a "life style brand", it regards the combination of HTC's mobile phones and Beats Electronics' accessories as being able to strengthen HTC's brand image.

Post-acquisition performance. HTC cooperated with Beats Electronics on audio software and hardware after acquisition. The first model of HTC phone was HTC Sensation XE with earphones from Beats Electronics. The mobile device was sold in Asia, the Middle East, Africa, and Europe from September, 2011. With a price tag of US$653, HTC viewed the new product as a high-end product. The second model was HTC XL, following by HTC Rezound, which was only launched in the US via Verizon. The market share dropped to 6.5 per cent after two quarters, which directly impacted HTC's revenue.

According to HTC (2011e), the revenue was around US$4.53tn and annual growth rate was 79 per cent. Further, the profit after tax was around US$62.27m and the quarter growth rate was 7 per cent. The cooperation with Beats Electronics apparently enhanced sales of HTC phones. However, the revenue decreased to US$3.38tn and the profit after tax decreased to US$36.47m in the fourth quarter of 2011. In other words, the revenue decreased 25.32 per cent only after a quarter. The revenue in the first quarter of 2012 dropped to US$2.26tn. Even though HTC asserted that the old models caused revenue to decrease, it is undeniable that the sales performance after the combination of Beats Electronics did not reach HTC's expectation. HTC decided to stop bundling Beats headphone with HTC phones in April 2012. For this strategic decision, HTC Product Executive (interviewee G) expressed:

> An accessory like the headphone doesn't factor in when someone is buying a smartphone [. . .] if consumers want a Beats Electronics headphone, they will buy it directly (CNET, 2012).

In sum, Case A shows the cross-border M&A risks as HTC invested US$309m on acquiring 51 per cent of shares from Beats Electronics. The investigation revealed that HTC was motivated from the technology and brand image owned from Beats Electronics. However, HTC sold back 25.23 per cent of its share to Beats Electronics after nine months. It caused US$4.87m financial loss due to differences in exchange rates.

Case B: HTC's acquisition of S3 graphics

Technological patent litigation. Case B is HTC's acquisition of S3 Graphics (S3G). S3G was founded in 1989 by Dado Banatao and Ronald Yara as a graphics company located in the US to provide graphics visualization technologies for PCs and mobile devices. S3G was once the leader of single chip accelerators and 2 D chipsets; however, it failed to provide 3 D graphics card and lost its ground in the industry. In 2001, it was acquired by VIA Technologies (VIA), which is a supplier of x86 processor platforms. VIA invited WTI Investment International

(WTI) to invest in S3G due to a shortage of capital two years after the investment. WTI is a private investment company controlled by VIA and President of HTC, who is the largest shareholder of WTI and also the chairman of both HTC and VIA. S3G still could not raise its sales of both 2D and 3D graphic cards after being acquired by VIA. S3G is a small firm with 36 employees when it was acquired by HTC.

HTC invested US$300m to acquire a 100 per cent stake of S3G from VIA and WTI in July 2011. HTC paid a premium to VIA of US$147m and to WTI of US$153m, all in cash (HTC, 2011b). However, HTC stakeholders were concerned about the choice of the acquired firm and also the size of the deal paid to S3G, since S3G had ten years of negative financial performance and net losses of US$9m. HTC's previous CFO (Interviewee E) asserted:

> S3 patents have not been taken into account in its net value and the patents will bring in values of more thanUS$300million in the next one to two years (Taipei Times, 2011).

HTC was confident in the value of the acquisition brought to the mobile phone manufacturer. HTC emphasized that a firm without patents can only be passive in a patent negotiation. On the same day of the acquisition of S3G, HTC released an official press:

> The acquisition strengthens HTC's technology leadership and extends its IP portfolio with the addition of 235 patents and the pending applications, including those related to graphics visualization technologies (HTC, 2011b).

The statement indicates the importance of texture compression algorithms, which is a kind of graphic technology known as S3 Texture Compression (S3TC™) possessed by the targeted firm. The previous CFO of HTC emphasized, "*buying a patent portfolio will be very useful to us*" (Bloomberg, 2011). Regarding this acquisition, the CEO of HTC also stated:

> [. . .] a leading mobile innovator, HTC is committed to continually enhancing its IP portfolio and the S3G' patents were complementary to HTC's innovations and capabilities (HTC, 2011b).

The motivation for HTC to acquire S3G was its winning a patent lawsuit against Apple in 2010. The US International Trade Commission (ITC) issued an initial determination finding that Apple violated two of S3G's patents related to image data formats and image compressing. The technologies were applied to many of Apple's products, including laptop, desktop, iPhone, and iPad. The judgment from ITC motivated HTC to acquire S3G to obtain its patents. HTC acquired S3G since the targeted firm won the lawsuit against Apple in the initial determination after ITC dismissed the lawsuit.

Patent lawsuits between technology firms are not a new phenomenon in the mobile makers, including Apple, Samsung, Motorola, HTC, and Sony. However, the patent war between HTC and Apple was fierce. The lawsuits between Apple and HTC began in March 2010. Apple sued HTC for infringing twenty of its patents related to the user interface of Apple's iPhone, underlying architecture and hardware (Apple, 2010). Apple sued HTC for four patent infringements in June and five patent infringements in July 2010. The smartphone patent war continued till 2011. Apple sued HTC for nine patents infringement in total. As for HTC, it only sued Apple for four patents infringed in 2010 and twenty in 2011.

The outcome of losing the patent war was that certain models of HTC phones were banned from importation into the US. After ITC ruled that HTC infringed two of Apple's patents, HTC One X and HTC Evo 4 G, which used the techniques Apple claimed to own, were banned from importation into the US for two weeks. Time to market is a crucial consideration, since the mobile phone industry is extremely competitive. HTC incurred serious losses due to the delay. Apple and HTC finally reconciled and reached a settlement which dismissed all patent lawsuits in November 2012. HTC expressed:

> HTC is pleased to have resolved its dispute with Apple, so HTC can focus on innovation instead of litigation (HTC, 2012)[3].

Post-acquisition performance. The acquisition turned sour only after five months after ITC dismissed the complaints from S3G and ruled that Apple did not violate the patents of S3G in the final determination. HTC released an official statement expressing its disappointment towards the determination:

> HTC is disappointed at the outcome of the recent ITC ruling that stated Apple did not infringe S3G's patents. S3G will continue to appeal [. . .] HTC has made significant effort in preparing for these complicated legal proceedings, including a complete legal investigation and comprehensive report on patent and price evaluations. HTC had decided to acquire S3G based on the strong belief that evidences of patent infringement from Apple were clear and ITC ruled in its initial determination that Apple had infringed two patents from S3. In light of recent development, HTC will work closely in good faith with VIA Technologies and WTI Investment International to conduct [a] holistic re-evaluation of the S3G acquisition (Appleinsider, 2011; HTC, 2011a).

The above statement shows that HTC's M&A did not meet the goal of acquiring S3G, which was to win the patent lawsuit against Apple. Although the sales performance of HTC phones might not have been directly impacted from the lawsuit, HTC spent US$300m on the acquisition[4].

Case A shows the cross-border M&A risks as HTC invested US$309m on acquiring 51 per cent of shares from Beats Electronics. The investigation revealed that HTC was motivated from the technology and brand image owned from Beats Electronics. However, HTC sold 25.23 per cent of its share back to Beats Electronics after nine months. It caused US$4.87m loss due to differences in exchange rates.

Case B illustrates that HTC's acquisition of S3G in the US was motivated by the technology and patents possessed by S3G. The value of transaction reached US$300m. However, HTC lost the patent lawsuit against Apple.

Overall, Cases A and B presented in this section indicate that the Taiwanese acquirer suffered significant overpayment and international litigation patent risks. This highlights the importance of managing due diligence and transactional patent litigation in cross-border technology M&As. The key findings from the dual cases are summarized in Table V.

Discussion and conclusion

Although HTC had multiple motives behind these two cross-border M&As, they had a common motivation: the acquirer intended to strengthen its technological leadership. According to Viachinaheart (2012), HTC's president stated that "valuable technology which a target possesses is the main motivation making HTC form an M&A". A firm with advanced technologies protected by patents can retain exclusive use of proprietary technology (Kaul, 2013), thereby creating a barrier for competitors to enter the market (Brouthers *et al.*, 1998). The cases demonstrate the importance of technological resources and appropriability in the mobile phone industry (Holgersson *et al.*, 2018; Lew *et al.*, 2016). Advanced technological resources deliver a firm various advantages. The firm can differentiate products from its competitors to attract consumers who endorse advanced technology. As such, HTC attempted to acquire advanced and complementary technologies such as earphones (Case A) and graphics (Case B) to differentiate itself from its competitors[5].

The extant literature shows various types of motive driving an acquiring firm to make M&A transactions (DePamphilis, 2008). However, the current study identifies that two of the motivations for HTC to make the acquisitions were unique (i.e. rebuilding brand image

Key findings	Case A	Case B
M&A intent	New product development Rebuilding brand image Global expansion	Technological leadership Technology protection Patent litigation
Risks associated with cross-border M&As	Overpayment Foreign exchange rate exposure Strategic resource integration	Overpayment Overestimation on technological resources Intense market competition
Misalignment	Failed to generate intended strategic synergies Non-complementary resources	M&A integration process mal-management Failed to analyze dynamic technological trends
Post-acquisition performance	Unsuccessful new product launch Decreased revenues and stock price Sellback the acquiree shares	Patent lawsuit against a competitor Increased legal costs Failed to be a market leader
Reflective implications of resilience		
Financial	Management of appropriate financial valuation of a target firm	
Strategic and organizational	Management of resource abundance: (slack) internal and environmental (external) resources Management of strategically motivational disparity between an acquirer and acquiree Developing organizational capability through learning from prior M&A experiences	
Process	Management of new product development process between an acquirer and acquiree Management of legal process in cross-border M&As Developing appropriation process of innovation outcomes	

Table V. Summary of key findings from the cases

and patent litigation), which are not well studied in the cross-border M&A literature. HTC acquired Beats Electronics to rebuild brand image (Case A). Compared with Apple and Samsung, HTC's brand image was relatively weak. Thus, the case firm strategically intended to rebuild its brand into a popular brand image by combining with the brand of Beats Electronics, which "harnesses popular culture in a manner that is unlike any other brand today" (HTC, 2011). By acquiring Beats Electronics, HTC hoped to attract more consumers who endorse Beats Electronics' brand and products and further reshape their brand image and, thus, raise its brand awareness specifically to strengthen its market position in the US and European markets as Beats Electronics was the biggest leading headphone maker in these markets.

As illustrated in Case B, one of the unique motivations for HTC to make cross-border M&As was to acquire the target firm's technological patents. HTC, compared with Apple, Samsung and other competitors, is a young branded company in the world smartphone industry. HTC used to focus on manufacturing rather than R&D. Therefore, HTC lacks patents and faces great pressure of international litigation whenever it launches new products in the US or European countries.

HTC regarded making an M&A as the quickest way to obtain advanced technologies. Therefore, HTC acquired S3G to obtain 235 patents and the pending applications to strengthen its intellectual property profile and win the patent litigation against Apple (HTC, 2011b). The number of patents was not the main motive driving HTC to acquire S3G. Instead, S3G won the patent lawsuit against Apple in the initial determination. HTC expected to win the lawsuit against Apple in the final determination by acquiring S3G.

We find that all the motives behind the cross-border M&As were to enhance HTC's "softability". The finding explains why the Taiwanese acquirer chose target firms located in developed countries. As shown in Table IV, all the target firms (seven cross-border M&As conducted by HTC between 2010 and 2011) are located in developed economies. Further, many of the M&A deals were backward vertical investments and a few were related to acquisitions to strengthen its value chain activities. The acquired firms in developed countries have advanced technologies and strong brand image compared with Taiwanese firms. Thus, HTC is more willingly take higher risks to conduct cross-country M&As.

Implications for resilience and risks entailed in cross-border M&As

Increasingly, cross-border M&As are intended to integrate and expand global value chain activities from the diversification and growth approaches which can be developed in the course of careful risk management of the M&A process. This paper provided different accounts on the risks of cross-border M&As from finance, strategic and organizational, and process perspectives and indicative explanations about resilience. In this way, it illustrates a more integrated approach to managing the cross-border M&A process. Organizational resilience has become a center of attention for practitioners and researchers because of its recognized significance to developing long-term outcomes at individual and organizational levels (Hamel and Valikangas, 2003). Organizational resilience is an important element of maintaining well-being in challenging circumstances at the organizational level (Guest, 2017; Khan *et al.*, 2017). With organizational resilience becoming increasingly critical to the today's organizations operating in conditions of vulnerability and continual flux, there is a need to understand how organizational resilience processes may mitigate the risk management involved in cross-border M&As. As resilience is viewed as a path-dependent process capacity (Ortiz-De-Mandojana and Bansal, 2016), we identify the organizational resilience processes that enable them to associate various risk factors in the context of the cross-border M&A process. Arguably, a shift in focus from risk factors to coherent organizational resilience processes is required to gain a fuller conceptual understanding of the M&A process.

Based on a dual case study of cross-border M&As of HTC, the research presents key findings and resilience implications for firms engaging in cross-border M&As (Table V). We depict different risks factors associated with cross-border M&As with organizational resilience from the financial, strategic and organizational and process aspects. Coherently, this approach helps provide some of useful solutions for developing organizational resilience. The process of organizational resilience that managers use to cultivate their cross-border M&As depends on their strategic intent of the organizations in the given marketplace. Organizational resilience is the framework that can facilitate cross-border M&As with respect to managing three specific risks under vulnerability. In the following sections, we discuss these three processes of organizational resilience.

Financial resilience. This study finds that HTC is at high risk of overpayment. Although there is no explicit method to judge or justify whether an acquirer has paid too much to the target firm, HTC develops its own evaluation criteria through evaluating post-acquisition performance of both HTC and its target. The criteria include acquirer's stock price, financial report, sales performance of mobile phones and both parties' earnings per share (EPS). The research reveals that the acquisition of Beats Electronic boosted sales of HTC phones for only two quarters. The market share of HTC phones dropped to 6.5 per cent in the 1st quarter of 2012. The examination of HTC's EPS shows that the value in 2012 decreased by 60.86 per cent compared that in 2011. HTC's EPS dropped more than 6 per cent, indicating that the acquisition brought negative impacts to HTC in terms of both stock price and market value. Moreover, the acquirer even sold nearly half of its stakes back to Beats Electronics and lost US$4m. The finding of overpayment risk is along the lines of the theory of Dobbs *et al.* (2007), who argues that differences in expected synergy and perception of future prospects are reasons for the acquirer to overestimate the value of the target firm.

Strategic and organizational resilience. In the context of the organization's strategic and organizational management, the findings indicate that structural and organizational key variables, such as the relative size of target and acquiring firms, resource integration and business relatedness, determine the process of M&A activities. These structural and organizational variables have been noted to be some of the important determinants for the success of M&As (Gomes *et al.*, 2013; Sinkovics *et al.*, 2015). Focusing on performance implications of cross-border M&As, related M&As (vertical integration) tend to better facilitate the acquirer to achieve economies of scale and scope (DePamphilis, 2008; Morck *et al.*, 1990). When the acquiring firm completes a related acquisition, it can integrate the resources of the target firm in a similar/related market, thus exploiting business or R&D activities (Datta *et al.*, 2001), while unrelated M&A deals allow the firm to increase its diversities, which allow it to explore new business and technological innovations with greater risks (Ervits, 2018).

The case study indicates that the post-acquisition outcomes of the dual cases did not achieve HTC's initial M&A goals and expectations and highlights the risks of mismatch of motives. HTC suffered higher risks in conducting foreign transactions; however, the post-performances of the target firm did not bring expected positive return and even resulted in serious company losses. In addition, HTC lost one of the patent litigations against Apple in the final determination after acquiring S3Graphics. This means that HTC wasted the US $300m invested in the transaction.

The previous literature has widely discussed the strategically motivational disparity in in M&As, and the misalignment between an acquirer's expectation and its target's post-acquisition performance is seldom regarded as "risk". This study argues that whether an acquirer can achieve its expectation on acquisition is uncertain and depends on the post-acquisition performance of the target firm. Therefore, it regards the mismatch as one kind of risk in M&As. The mismatch forced HTC to take different responses to the negative financial impact from the acquisition: one was to sell back part of the stakes to the target firm, and another one was to re-evaluate the investment. As shown in Table V, from the behavioral perspective on the firm (Nadolska and Barkema, 2007; Zakaria *et al.*, 2017), the findings of the cases provide some of useful reflective implications of resilience regarding cross-border M&As, such management resource abundance and strategic M&A intent between an acquirer and acquiree, and development of organization learning from previous M&As.

Process resilience. Case B indicates that HTC has been in a vulnerable position in international litigation like most Taiwanese high-tech firms (Chen *et al.*, 2008). HTC acquired S3G as part of its strategy to win the international litigation against an American competitor, since S3G won the patent lawsuit against Apple in the initial determination. However, HTC lost the international litigation against Apple in the final determination. After ITC announced that Apple did not infringe the patents of S3G, HTC released an official statement saying, "they have made significant effort in preparing for these complicated legal proceedings, including a complete legal investigation and comprehensive report on patent and price evaluations" (HTC, 2011a). However, the outcome of the final determination was disappointing for them.

The lost lawsuit was not an accident, based on the study in Case B and the patent war between Apple and HTC. The consequence of losing the lawsuits was that several models of

HTC phones were banned from importation into the US. Although the mobiles were allowed to launch after two weeks, the delay of time to market caused serious financial losses to HTC. The empirical study in this research shows that Taiwanese MNE faced high risks in losing international lawsuits, even though HTC asserted that it had made efforts in the litigation, including preparing legal proceedings, conducting investigations and evaluation. As provided in Table V, to cultivate organizational resilience the cases reveal that management of legal process (e.g. international patent litigation and appropriability) still needs to be improved. From the IB perspective, the findings allude to a more nuanced implication of pre- and post-acquisitions in cross-border M&As such as importance of mastering institutions and business systems between two foreign acquirer and target firm.

Managerial implications

The international expansion and M&A strategies of MNEs embody a significant part of research in a variety of management disciplines of IB and strategic management. This paper is designed for practitioners considering the undertaking of an M&A deal, and offers a basis for developing and conceptualizing how organizational resilience processes best lead to cross-border M&A development. To achieve tangible synergy from cross-border M&As, organizations need to cultivate resilient processes. Having a clear understanding of how some cross-border M&As are more resilient and capable of realizing the expected synergy from the M&A process than others is a crucial consideration because the costs involved in cross-border M&As can be extremely high. We believe that having a multidisciplinary perspective contributes to the advancement of research on the cross-border M&A process. From the financial, strategic and organizational, and process aspects, we identified three types of risk involved in cross-border M&As, which can be threats of any negative impacts, arising from internal complexity or external vulnerabilities. Here, by understanding their vulnerabilities, organizations can cultivate resilience and develop specific resilience processes to compensate for those vulnerabilities associated with risks. Further, the discussion has illustrated how the different types of each of the cross-border M&A risk factors can be mitigated by a range of resilience processes within the cross-border M&A process.

To respond to the uncertainty induced by cross-border M&A risks, acquirers should first break the tradition of risk management which is only carried out by high-level managers. To cultivate resilient processes, every member within an organization should participate in risk management (Fraser and Simkins, 2010). Risk management of cross-border M&As should not be limited primarily to financial risk. The two cases show three types of risk as shown in Table V. Therefore, the risk management of acquirers should be broadly focused. Furthermore, this research suggests that managers should take acquisition as a learning process (King and Schriber, 2016). The acquirers can learn from both successful and failed acquisitions. The acquirers can examine which factors lead M&As to create synergies between firms and learn what causes M&As failure. That is, the acquirers can learn from prior M&A experiences, thus developing organizational capability. Furthermore, this pointer leads to the importance of due diligence in cross-border M&As.

This paper provides essential insight on organizational resilience processes and how these processes interact to mitigate the specific risks involved in cross-border M&As. From the above discussion, our research framework highlights that to manage cross-border M&A risks, organizations need appropriate resilience processes and coherent inter-linkages between risks factors and resilience processes (Table V). Given the complexity and breadth of different types of risk, we find organizations tend to display a varied range of risks involved in cross-border M&As, along with aspects in need of improvement of managing risks. In line with the increasingly held perspective that organizations struggle to manage cross-border M&As which evidently exhibited from the high failure rate (Zhou *et al.*, 2016). The high failure rate of cross-border M&As supports the need to move away from merely a risk management perspective to leading the movement for cultivating resilient organization.

Limitations and future directions

The research has some limitations. First, in interpreting the findings, one should be cautious in generalizing them as they are based on the dual cases in one organization. Future research can explore multiple cases from different organizations and industries to yield more generalizable and reliable findings. Second, as some of the key information was confidential, this research mainly used secondary data. Obtaining the company's internal and confidential documents from the two acquisition cases was not possible. The secondary data provide case background, motivations and post-acquisition performance for investigating the research questions of this study. The validity and reliability of the secondary data, such as cross-checking of information, were confirmed.

Third, the interview was obtained from secondary data sources. As the respondent was answering questions that were designed for other purposes, the analysis on operational and financial risks was rather limited in this research. The use of secondary data was due to limited time, budget and difficulty of getting access to top and middle level managers. Finally, this research focuses on investigating the negative outcomes of cross-border M&As in the context of the mobile phone industry in Taiwan. Although the research adequately analyzes financial and institutional risks in cross-border M&As, it largely ignores other types of non-market risks in foreign market entry such as ethnic, political, and environmental exogenous risks (Oetzel and Oh, 2019; Oh and Oetzel, 2017; Pek *et al.*, 2018). Therefore, a suggestion for further research is to extend the examination to other countries and industries to gain more insights of non-market risks of the M&As.

Notes

1. Regarding the acquisition premium, scholars have different definitions. For instance, Haunschild (1994) defines it as the percentage differences between the trading stock price of the acquired firm before the announcement of the deal and the price per share paid by the acquirer. Rossi and Volpin (2004, p. 283) define the premium as 'the bid price as a percentage of the closing price four weeks before the announcement'.

2. Share exchange means, by the resolution of the general meeting, a company transferring all its issued shares to another company in exchange for the issue to its shareholders of shares in that company. Division refers to an act wherein a company transfers all its independently operated business or any part of it under this law or other applicable law to an existing or a newly incorporated company as the consideration for that existing company or newly incorporated company to issue new shares to that company or shareholders of that company.

3. HTC did not disclose the terms of the deal. Therefore, there is no information on the royalty that HTC paid to Apple.

4. HTC's stock price dropped to NT$287 on the day following the announcement.

5. For instance, in the early 2010s HTC adopted the same OS as competitors such as Samsung, Sony, LG, and Motorola.

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